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News Print Mills Agree to Stabilize Prices

Following Conferences of Representatives of Practically All Canadian News Print Manufacturers With Premiers of Quebec and Ontario at Montreal, Agreement Satisfying All Interests Was Reached—While Terms Are Kept Secret, Present Arrangements May Bring About Stabilization of Industry Over Period of Years

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., November 26, 1928.—The past week has been a week of conferences in the news print industry, and while the result at the time of writing is obscure the general feeling in the industry seems to be that progress has been made towards putting a stop to cut-throat competition among the news print manufacturers. This feeling has resulted in a partial recovery of the news print stocks, the securities of a number of the leading companies having risen several points. To say, however, that there is a feeling of optimism among any but the speculators in news print stocks, who by nature catch at straws, would be an exaggeration, for those who know most about the situation appear to realize that no matter what mitigations are brought about by conferences, the malady from which the industry is suffering is one that will necessarily entail a long period of convalescence.

Premier Ferguson Speaks Out

The week started with the news from Toronto that Premier Ferguson had been doing some plain speaking to the news print interests in Ontario. Apparently one result of the cut in the price of news print has been a cut in the wages of certain classes of workers and a cut to the bone of prices paid to settlers for pulpwood. This has created a situation not without political significance to the party in power, and Premier Ferguson apparently has caught the significance, for he issued a stern lecture to the companies chiding them for the "chaotic situation," telling them that some arrangement should be made "to distribute the burden over the whole industry" so that it should not fall unequally on certain districts, and concluding with the warning that "the Government will insist that the interests of the Province be protected."

Series of Informal Meetings Held

Following upon this, the news leaked out that certain news print interests were holding a series of informal conferences in Montreal, and that those present at the conferences included J. H. Gundy and A. R. Wood, of Wood, Gundy & Co.; Alex. Smith, of New York, representing the Abitibi company; E. W. Backus, of Minneapolis, with interests in Western Ontario; George H. Chahoun, Jr., of Grand'Mere, and A. Cross, vice-president of the Canada Power and Paper Company.

"There was no representative of the Canadian International Paper Company present," added a newspaper report.

Simultaneously another conference was being held in Quebec City, when two of the outstanding figures in the news print industry in the Province of Quebec waited upon Premier Taschereau in connection with the situation, but although the two men, Lieut.-Col. J. H. Price, president of Price Bros. & Co. of Quebec, and General J. B. White, of Montreal, general vice-president of the International Paper Company, were in conference with the Premier for nearly thirty minutes, nothing could be learned as to what had been discussed.

Inter-Provincial Conference

Following upon these informal conferences, the long-awaited inter-provincial conference took place in Montreal on Friday, there being present Premier Taschereau, of Quebec; Premier Ferguson, of Ontario; the Hon. Horace Mercier, Minister of Lands and Forests for Quebec; the Hon. William Finlayson, Minister of Lands and Forests for Ontario; F. X. Lemieux, deputy Minister of Lands and Forests for Quebec; G. C. Piche, Chief Forester of the Province of Quebec, and a representative gathering of officials of the various pulp and paper companies. The conference was held at the Ritz-Carlton Hotel. The conference was held in the utmost secrecy, drastic orders being given to secure any leaks to the press.

Satisfactory Agreement Reached

At the conclusion of the conference both Premier Taschereau and Premier Ferguson made statements to the press. Premier Taschereau said: "The paper manufacturers have been holding conferences for a week, and when we met this morning they had reached an agreement to which practically every paper manufacturer had subscribed. When we met, they informed us that they had come to an agreement which they believed would stabilize the price of paper, and put an end to the present difficult situation. We were very glad to hear that, and we promised them, Mr. Ferguson and myself, the full cooperation of the governments of Ontario and Quebec to see that every party to that contract would live up to it. The gentlemen whom we met this morning are business men, all familiar with the condition of their industry, and they believe that they have found a solution which will bring good results. That being so, both governments are absolutely satisfied, and, I repeat it, we will cooperate with the paper manufacturers to see that they live up to their agreement.

"Furthermore," added Premier Taschereau, "it was suggested this morning that a further conference should be held later between the Ministers of Crown Lands of Ontario and Quebec to try to bring about, as much as possible, uniformity in the laws and regulations of the Crown Lands in the two provinces, so that Ontario and Quebec would stand as one in that respect.

"We believe that if we were to join hands, and cooperate, we

would be masters of the situation, to a great extent. We have got the raw material, the labor, and the power. Therefore, we believe we should be masters of that market.

"I think that everybody agreed this morning that there has been overproduction in the past, this was brought about perhaps by the conditions that prevailed after the war, through the high prices that paper brought then. Since then we find that although demands have been increasing for paper—for I see that for the ten first months of this year we have exported to the United States over 15 million dollars more than for the same period last year, which shows that the market is good. There has been over-production, and over-capacity. We hope that with the agreement entered into this morning this condition will be overcome, and successfully met."

The Quebec Premier said that after he had left the conference he understood the news print men were to continue to meet to deal with "details of agreements that are technical."

Plans to Stabilize Prices

Mr. Taschereau was asked as to price stabilization, and replied that the news print men had devised some plans which will "stabilize prices."

"Great credit is due to C. R. Whitehead, president of the Wayagamack Paper Company, of Three Rivers, who was greatly instrumental in bringing these gentlemen together," added the Premier. He understood that Mr. Whitehead was the object of much congratulation from all sides for his successful efforts in this direction.

Premier Ferguson said: "The paper manufacturers have shown a remarkable spirit of cooperation, and this proves that personal contact solves all difficulties. They have shown a remarkable desire to cooperate and have acted together, and solved their difficulties. They discussed matters with Mr. Taschereau, and Hon. Honore Mercier, Quebec Minister of Lands, and with myself and Hon. Mr. Finlayson, Minister of Lands of Ontario, and we feel that so long as they continue in that spirit the governments are prepared in the public interest to give them every assistance, so that the industry may be preserved and protected. We feel sure that their public-spirited action in this regard will be very satisfactory to the public generally, because it means stabilization of the industry, continuation and increase of employment, local markets for the farmers for the pulpwood, and security to the investors. "In other words," added the Hon Mr. Ferguson, "the men interested have shown themselves ready to look at the issue from a broad national standpoint, rather than from the selfish individual interest of their particular mill or industry."

"What will they do?" was asked the Premier.

"I cannot disclose to you what has been done, for that is their affair," replied the Premier. "They expect to discuss the matter further tomorrow morning with regard to some details of administration which are internal."

"Along what lines does the solution lie?"

"They have taken the very sane position that there is so much consumption, and that the industry must share it equitably until conditions improve," said Mr. Ferguson.

"Anything as regards prices?"

"As far as I know, nothing. The governments have not attempted to interfere in the international operations at all. Our point of view has been entirely the maintenance of the industry itself in the public interest."

Following the conference the following statement was issued:

"The paper manufacturers met this morning the Prime Ministers of Ontario and Quebec, and the Ministers of Crown Lands of those provinces. The whole paper situation was reviewed and discussed, and the ministers were informed that the manufacturers, after a week of conferences, had come to a satisfactory agreement leading to stabilization of the industry, the terms of which were submitted.

Ministers Express Satisfaction

"The ministers expressed their satisfaction that such an understanding had been reached, and declared themselves prepared to cooperate with the manufacturers towards the carrying out of such an agreement, which they believed was calculated to restore confidence of both the publishers and the public alike. The ministers agreed that the stabilization of the industry over a period of years was a matter of national importance, and felt that the present arrangement would bring this about.

"Further conferences will follow, to work out the necessary details."

Those present yesterday were: Premier L. A. Taschereau, Hon. Honore Mercier, Minister of Lands and Forests, F. X. Lamieux, Deputy Minister, and G. E. Piche, chief of the Quebec forestry service, representing the province of Quebec; Premier Howard Ferguson and Hon. Wm. Finlayson, Minister of Lands, representing Ontario; C. R. Whitehead, president, Wayagamack Paper Company; George McKee, president, Port Alfred Pulp and Paper Company; Jackson Booth, Fred Booth, of J. R. Booth Company; George H. Montgomery, K.C., representing the news print industry generally; E. W. Backus, Great Lakes Paper Co. Limited; E. R. Wood, H. H. Horsfall and A. F. Fullerton, Dominion Securities Corporation; E. A. Wallberg, Lake St. John Pulp and Paper Company; J. H. Gundy; J. H. Black; Jos. A. Bothwell, Brompton Pulp and Paper Company; Ernest Rossiter; E. L. Crooker, Canada Power and Paper Company; Frank Clarke, Anglo-Canadian Pulp and Paper Company; V. M. Drury, and Mr. Caesar, of E. B. Eddy Co.; Alex. Smith, Abitibi Power and Paper Company; George M. Chahoon, Jr., Canada Power and Paper Company; J. H. Price, Price Bros.; P. B. Wilson, Canadian Newsprint Company, and L. R. Wilson, Abitibi Power and Paper Company.

Production to Be Limited

Following the conference with the Premiers of Quebec and Ontario, the news print manufacturers held further conferences in Montreal, and reached a decision to limit production in all mills to 80 per cent of capacity.

A. R. Graustein, president of the Canadian International Paper Company, is stated to have acquiesced in this arrangement, although he was not at the conference.

The problem which is now causing concern is the problem of price. The feeling of the gathering was that a price of $50 a ton is not sufficient, and notably so in the case of some mills which will have to sacrifice customers to permit of an equitable distribution of the market offering. On the other hand, the Canadian International Paper Company has a contract, said to be for three years, with the Hearst interests at a price of $50 a ton, and it was around this contract and the consequences arising therefrom that much of the discussion has waged.

Question of Price Discussed

Opinion of the conference was in the main that news print should be sold at a fixed price of not less than $55 a ton, and mention was made of $57 a ton, though as those taking part in the conference were pledged to secrecy it is not definitely known whether the $55 or $57 price had most favor. No fear was expressed, as far as could be learned, as to any complications arising in Canada because of an agreement to fix the price, but the question of possible action in the United States was foreshadowed, especially should adherence to one price entail cancellation of a contract.

Better Distribution Assured

On the subject of limitation of production to a basis of 80 per cent there was less difficulty encountered. It is learned that the first proposal was that the reduction from capacity should be on a basis of the capital invested in the mill, the argument therein being that it should be accepted that a definite investment meant a definite output, but ultimately it was decided that limitation to 80 per cent of capacity would better serve the object in view, in-

suring a better distribution of purchasing, thereby better achieving the object of the Provincial Governments in the matter of encouragement of colonization and distribution in the employment of labor.

The result of this will be that some of the mills, and notably, the Abitibi Power and Paper Company, which has been producing considerably less than 80 per cent, will increase their production and other mills which have been running practically at capacity will have to relinquish a portion of their present market. The reshifting of business thus involved will necessarily have its influence in maintaining the fixed price to be decided upon, a commitment of a mill as to price not being binding upon the mill which takes over the business.

Canadian Paper Exports Expand

Canadian exports of pulp and paper in October, according to the report issued by the Canadian Pulp and Paper Association, were valued at $18,340,019 which was an increase of $3,580,297 over the previous month and with the exception of March was the highest monthly total for the year to date.

Woodpulp exports in October were valued at $4,232,557 and exports of paper at $14,107,462 as compared with $3,568,494 and $11,191,228 respectively in September.

Details for various grades of pulp and paper, as compared with October, 1927, are as follows:

	October, 1928		October, 1927	
PULP:	Tons	$	Tons	$
Mechanical	21,136	587,796	22,819	617,027
Sulphite bleached	22,869	1,748,017	18,675	1,458,778
Sulphite unbleached	18,477	921,780	12,297	634,585
Sulphate	15,706	914,877	16,247	954,243
Screenings	2,956	60,087	2,359	42,589
	81,144	4,232,557	72,397	3,707,232
PAPER:				
News print	214,228	13,576,872	159,284	10,461,411
Wrapping	1,368	150,545	1,283	140,101
Book (cwts.)	4,948	39,892	7,772	54,784
Writing (cwts.)	2,738	19,263	851	6,317
All other	.....	320,890	.....	359,426
		14,107,462		11,022,039

For the first ten months of the year there was an increase in the exports of pulp and paper of $13,113,759 as compared with the ten months of last year, the total for the period being $157,889,459 as against $144,775,700.

Woodpulp exports this year have declined slightly in value, the total for the ten months being $37,655,890 as against $39,038,429 in the corresponding months last year.

Exports of paper showed an appreciable gain over last year, the total for ten months being $120,233,569 as compared with $105,737,271 in the ten months 1927, an increase for the current year of $14,496,298.

Quantities and values for the ten months were as follows:

	Ten Months, 1928		Ten Months, 1927	
PULP:	Tons	$	Tons	$
Mechanical	158,372	4,318,550	216,435	6,508,041
Sulphite bleached	211,069	15,990,237	196,967	15,270,840
Sulphite unbleached	176,097	8,845,695	158,281	8,541,468
Sulphate	135,284	7,981,777	140,513	8,454,488
Screenings	25,820	519,631	13,997*	263,592
	706,642	37,655,890	726,193	39,038,429
PAPER:				
News print	1,797,238	115,272,255	1,532,696	100,371,716
Wrapping	13,256	1,452,681	12,093	1,367,138
Book (cwts.)	55,369	458,644	85,874	586,879
Writing (cwts.)	6,207	51,348	11,533	92,659
All other	.....	2,998,641	.....	3,318,879
		120,233,569		105,737,271

*7 months only.

Pulp wood exports for the first ten months of the year amounted to 1,406,731 cords valued at $14,047,232 as compared with 1,440,629 cords valued at $14,645,341 exported in the corresponding months of 1927.

Mullen Paper Mill Corp. Chartered

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., November 24, 1928.—The Mullen Paper Mill Corporation, Union Bank Building, St. Joseph, Mich., has filed articles of incorporation. There are to be 60,000 shares of no par value common stock.

International Expansion in Southern States

The starting of construction by International Paper Company on a kraft paper mill at Mobile, Alabama, and its decision to build another in the Carolinas, draws attention to the rapid expansion of the company in southern United States. In a little over three years the company has acquired two kraft paper mills in Louisiana and another in Mississippi, has built a fourth mill in Arkansas, and is now erecting its fifth kraft paper mill at Mobile.

With the exception of one of the Louisiana mills—which was bought in July, 1925—this expansion has occurred in the past twenty months, and has resulted in International Paper Company becoming the largest maker of kraft paper in the world. When its new mill in the Carolinas is completed, the company will have a daily capacity of about 900 tons of kraft paper and board.

Supplementing these activities, International Paper Company is also expanding rapidly in the southern paper bag field, and as a result now ranks as one of the leading manufacturers of paper bags. In March of this year the company finished and began operation of a paper bag plant in conjunction with one of its Louisiana kraft paper mills, is completing another bag plant to take the output of its new Arkansas mill, and has commenced construction on its third southern paper bag plant at Mobile.

The Louisiana plant——located at Bastrop—is making grocery bags and before the end of the year will be producing them at the rate of about 14,000 tons annually. Grocery bags will also be made at the new Mobile plant, which will have about twice the present capacity of that at Bastrop. Both of these plants will be operated by Continental Paper and Bag Corporation, a subsidiary of International Paper Company.

Cement bags will be made at the Camden, Arkansas, plant now nearing completion. These bags will be of the multi-wall valve type and the new plant will have a capacity of over one hundred million a year. The plant will be operated by George & Sherrard Paper Company—another subsidiary of International Paper Company—which owns a license to make multi-wall valve cement bags under the Bates' patents. At Wellsburg, West Virginia, George & Sherrard Paper Company now has a plant manufacturing rope paper, which is converted at the plant into bags for the flour, cement, plaster, and fertilizer industries. The Wellsburg mill also converts kraft paper into bags for the cement and allied industries.

In addition to this southern group, International Paper Company in the north has bag plants at Rumford Falls, Maine; Brooklyn, New York; Marinette, Wisconsin; and Ottawa, Ontario. These plants are operated by Continental Paper and Bag Corporation and are producing grocery and candy bags, bags for the millinery and notion trades, sacks for the charcoal, coal, and flour industries, and also bags for a large number of other uses.

In entering the southern kraft paper field and in becoming a maker of paper bags, International Paper Company is following its policy of wide diversification of products. Among the other manufactures of the company are news print paper, writing and book papers, sulphite and wrapping papers, mulch paper for agricultural use, wall board for the building industry, sulphite pulp for rayon manufacturers, envelopes and sanitary napkins.

S. W. Shannon Now With Groveton Paper Co.

[FROM OUR REGULAR CORRESPONDENT]

GROVETON, N. H., November 26, 1928.—S. W. Shannon, formerly associated with the Eastern Manufacturing Company, of Bangor, Maine, and recently superintendent of the Munising Paper Company, Munising, Mich., is now superintendent of the Groveton Paper Company, Groveton, N. H., having assumed his new duties November first. H. J. Reimer, well known paper maker and color expert, is in charge of beaters and coloring. These two well known paper makers, working with E. J. McDonnell, the general manager of the Groveton plant, gives to this company prospects of a very successful future.

Keen Bidding for Paper Orders in Philadelphia

Both Manufacturers and Distributors Alert For Own Interests Where Volume Orders Are Obtainable—Wrapping Paper Business More Active Than In Preceding Two Weeks—Continued Demand Experienced For Coarse Paper Specialties

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., November 26, 1928.—Though unseasonable weather has left its toll on many lines of papers that are usually active at this time of year there, nevertheless, is continued demand for many other stocks that normally quiet down with cooler days. Balmy weather and its reflection in the paper industry is indicated by the lively shipments of summer wares instead of the cold weather products which no doubt will become more active with winter months at hand.

In both branches of the industry keen bidding for orders is noted. Manufacturers as well as distributors are alert for their own interests where volume orders are obtainable and the one factor which now looms as a menace is the vigorous competition and attractive prices that are made where such contract lots are in view. Fine paper distributors and those in the wrapping paper section are complaining of this inroad on volume orders and where goods are already stocked at higher values of the early season there is the prospect of heavy loss to incur to the dealers. Local mill representatives are confronted with this same problem of keenly competitive bidding and complain that it makes a difficult path to prepare customers for the coming year's contracts with this unsettled price situation. As the trade undergoes this changed sentiment of future stability the dealers are prone to hold off orders from the mills pending a more settled attitude among the manufacturers and the waning of present competitive methods with their impending losses if prices work lower.

A fairer volume of business was noted in the wrapping paper section as the week ended in contrast to the preceding fortnight when demands slumped considerably. There are chiefly improved markets for wrapping paper and for corrugated products that will be needed for holiday purposes. Gummed sealing tapes were also notable for their activity as the merchants anticipate Christmas needs. These commodities were fairly stable among the dealers although much competition among mills for Quaker City business was not beneficial to the gummed tape market in so far as prices are concerned. Local mill representatives complained that there were unsteady prices in mill orders where dealers and consumers were ready to give sizable orders. Tissues are active and firm with the normal volume of holiday orders. Corrugated rolls and containers were more frequently ordered although the tendency to stock cautiously in restricted amounts prevails among consumers.

Paper Box Business Statistics

Following the issuance of the November report or monthly bulletin of the National Box Manufacturers Association which appeared last week it was stated that: "Notwithstanding the fact that retail sales are at peak levels and certain corporations are able to declare extra dividends, the set-up paper box industry is unlikely as a whole to obtain its share of the vaunted banner prosperity." The total sales of the industry for the twelve months ending December 31, 1928, allowing for the fall seasonal spurt, will probably show a reduction in volume of from 4 to 4½ per cent, as measured in dollars from last year with like shrinkage in profits, according to the report of the National Association, based upon correspondence of box manufacturers with the local headquarters in the Liberty Title and Trust Building, Broad and Arch streets. This lower ratio is expected to be reflected in corresponding shrinkage in paper supplies.

Paper Stock Drags

As paper stocks grow scarcer and the demands of the mills dwindle there is a continued scarcity of many grades that have been heavily purchased at higher levels within recent months. These supplies are among the book and writing paper grades where demand, though slower in the current month, is above the incoming stocks at the headquarters of the wholesalers. There is a dearth of all grades and prices hold steadily as mills withhold their demands. Paper dealers who have been disposing of their paper stock report that they have been able to obtain fairly good prices from the wholesale stock dealers despite dullness in mill buying.

Wholesale Paper Merchants Outline Program

With the first business session and luncheon, held at the Benjamin Franklin Hotel last Friday, the Wholesale Paper Merchants Association of Philadelphia was presented with a broad program for the advancement of its activities by the newly elected president, George K. Hooper, of the Hooper Paper and Twine Company. It was the most enthusiastic and fully attended gathering of wholesale paper men ever held here, the entire quota of enrollment being present. There was reported the appointment of the following to the various committees by the newly elected president:—Membership Committee, Frederick I. Brower, chairman; Harold N. Newell, American Manufacturing Company; C. J. Bartlett, Eastern Paper Company; Research Bureau, a new department devoted to the investigation and research of new sources of supply, E. L. Richards, Buffalo Envelope Company; Entertainment, E. L. Richards, Frederick S. Balsch, Schuylkill Paper Company, John G. Birle, Jr., American Forest Products Company; Publicity, Frederick S. Balsch and E. L. Richards, and the Credit Bureau under E. L. Richards. These are the newly elected officers: President, George K. Hooper; vice-president, Joseph Waldman, Jr., Edwin Fitler Company; secretary, John G. Birle, Jr., and Frederick S. Balsch, elected at this meeting to succeed Edward Van Schoonhaven, of the Knickerbocker Paper Company (who is unable to serve because of illness which confines him to his home) as treasurer.

President Hooper's Plans

In announcing his platform, President Hooper crystallized the activities into a definite aim for the organization, which is the outcome of two years' work in formulation of the needs of the wholesalers, under observation of the association. . There will be enrolled by springtime fifty members and this has created enthusiasm in the organization as representing almost 100 per cent of the local trade representatives of wholesalers of paper, twine and allied products, who have been lined up by the membership committee as desirable associates for the association. In giving a motive for the organization of the wholesale paper men's association, President Hooper stated that much had been accomplished through the interchange of business relationship, between manufacturers and distributors, establishing better business contact between those affiliated and promoting broader business relationship between the firms linked in the group of associates of the association. He further stated that manufacturers were receiving broader business consideration in view of the wider knowledge of the lines carried by the producers through association contact.

A most helpful method of announcing the various meetings held has been carried out, it was stated, through the monthly issuance of announcements on letter heads of each firm affiliated with the group of wholesalers in the organization. Each month the letter head of a different firm, with its informative heading of manufacturers' lines, is sent to the members informing them of

the meeting date and program, thus advertising the wares of that company among the associates. Another important and helpful factor which was made known in the outline of activities at this meeting was the amicable adjustment of problems among members and the promotion of profitable business through the Credit Bureau, where available service is to be had of matters pertaining to credits. The December meeting of the organization will be held on Friday, December 14, instead of the usual third Friday of the month, owing to the advent of the holidays on the latter date.

Bulkhead For Board Manufacturers

The Department of Wharves, Docks and Ferries, through the director, Richard Weglein, during the week, granted to the United States Gypsum Company, building board manufacturers, a permit for the construction of bulkhead, 400 feet in length, along the west bank of the Schuylkill River at the point south of 56th street, on which the new mills of the company are being constructed and which includes a paper board plant. The company obligates itself to dedicate the completed bulkhead to the City of Philadelphia and fill in the ground at the back of the improvement. This improvement will coincide with the proposed bulkhead across the foot of 56th street, which the city is building to reclaim the lowlands that abound in that section and providing access to the new wharf which will be built adjacent to the property of the Gypsum company and giving it waterfront shipping facilities. The improvement will be effected at a cost of $30,000. The Gypsum company is expected to receive approximately 300,000 tons of gypsum from Nova Scotia annually and will employ 300 men in the Philadelphia branch plant.

Northampton Paper Mills Bankruptcy

The schedule filed with the United States District Court here during the week in the bankruptcy proceedings instituted against the Northampton Paper Mills, located at Easton, Pa., states that the liabilities of the company are $156,342 and the assets $139,726. The mills became involved in involuntary proceedings last summer. They are devoted to the production of crepes and sanitary products.

Eaton Crane Pike In New Quarters

Quaker City headquarters of the Eaton Crane & Pike Company, of Pittsfield, Mass., are now located at 212-214 South 9th street, having removed from the old location at 13th and Filbert streets, where the firm occupied upper floors of the building. The new location in the heart of the shopping district is a store front property of 10,000 square feet which will be given over to the display of the Eaton Crane & Pike Company line of stationery papers, social stationery, papeteries and writing papers. The mills have taken a long lease of the property with store floor warehousing space in the basement. The new location will provide for attractive display rooms and window exhibition of the Eaton Crane & Pike line in the midst of the congested shopping section.

F. C. Weber Made Postmaster

Frank C. Weber, who is known to the trade as the former advertising manager of the Keasby and Mattison Asbestos Company, manufacturers of asbestos paper and allied products, has been appointed postmaster at Ambler, Pa., effective this month.

P. R. R. Sells Crepe Papers

The Pennsylvania Railroad Company, through the station master at the Broad and Carpenter streets station, sold at auction the 319 cases of crepe paper towels which were consigned to the Cretissue Paper Company, 2112 Washington avenue. The sale was made to defray expenses thereon.

Envelope Manufacturers In Pennsylvania

A report issued by the State Department of Industry, at Harrisburg, Pa., informs the trade that out of a total of 152 plants, valued at $55,903,895, reporting in the 1927 schedule of manufacturers of envelopes, thirteen were located in the State of Pennsylvania. The 1927 production, according to the Federal Department of Commerce, was an increase in value of 9.2 per cent compared with 1925, the last preceding census year.

William Mann Co. Elects Officers

At the recent annual election of officers of the William Mann Company, manufacturers of bank stationery and paper supplies for financial institutions and large corporations, the following officers were elected: President, William Mann Prizer, re-elected; Cooper H. Prickett, vice-president and treasurer; Joseph S. Wilds, secretary, and George G. Peterson, assistant treasurer. The board of directors in addition to the above includes Agnew T. Dice, J. Gowen Roper and John M. Morrissey.

National Gift and Art Association Winter Show

Paper trade associates who feature papeteries and social stationery used in gift and art shops and stationery houses, will exhibit at the coming winter show of the National Gift and Art Association, to be held in this city in the coming year from February 18 to 23. The headquarters of the National Association are located in Room 644, Drexel Building. The coming show will be staged at the Adelphia Hotel, where it has been held for the last seven years and previous to that time in conjunction with the Greeting Card Show, which for thirteen years met in this city. These shows attract a large number of buyers from the Eastern and Southern States. The coming show will be the eighth annual national show. Many importers of fancy writing papers, announcements, decorative wrapping papers, paper cords for gift tieing, napkins, social stationery and announcements, are to be seen at this annual affair. There usually is given over to the display more than six floors of the Adelphia Hotel. The secretary and manager of the show is William Hay, who heads the executive offices in the Drexel Building.

Writing Tablet Plant for Fort Edward

[FROM OUR REGULAR CORRESPONDENT]

FORT EDWARD, N. Y., November 24, 1928.—A prominent manufacturing firm of Brooklyn broke ground this week on property owned by the International Paper Company for construction of a new plant which will be used for the manufacture of writing tablets when completed. The Domil Construction Company has been awarded the contract which calls for a concrete and brick structure 100 by 150 feet with all modern conveniences. The firm plans to take possession of the new mill early in January.

The Brooklyn firm decided on the Fort Edward location for their plant for the reason that they purchase their stock from the International Paper Company and the local site it was found would be more economical than a location where the raw material would have to be shipped to them. It is understood that the shipping facilities which include a direct water route to New York City also entered into the decision to locate here. The machinery at the Brooklyn plant will be removed here as soon as construction work has progressed sufficiently to allow its installation. The new plant will be located at the extreme south end of the mill property near Mechanic street. A large force of men are completing excavation work and construction on the new mill will be pushed as rapidly as weather conditions permit. About 75 hands will be employed at the start of operations.

Algonquin Firemen Extinguish Blaze

[FROM OUR REGULAR CORRESPONDENT]

OGDENSBURG, N. Y., November 24, 1928.—Approximately 46,000 cords of pulp stored at the mill of the Algonquin Paper Company was threatened with destruction when fire broke out on a steamer used as a stay for the pulp at the end of the shipyard. The fire department at the Algonquin mill was called out and with the aid of the local firemen succeeded in extinguishing the blaze. Had the fire made its way into the pulp it would have been very disastrous.

Activities of Leading Ontario News Print Mills

Kapuskasing Plant Running Five Days Weekly Following Satisfactory Settlement of Strike—Kenora Paper Mills Operating on Short Time—Future Conditions Depend on State of Paper and Pulp Markets—Lumber Operations Cut in Half

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., November 26, 1928.—In connection with the attempts being made to straighten out the news print situation it is interesting to note extent of activities in some of the leading Ontario plants. Conditions in the pulp and paper industry at Kapuskasing, for instance, seem to be fairly satisfactory inasmuch as the strike of a few weeks ago is apparently settled to the full satisfaction of the men and the management. The mill, however, is only running five days a week, owing largely to the unsatisfactory condition of the pulp and news print markets. The Kenora Paper Mills, Ltd., at Kenora, Ont., is running on short time at present and a reduction of from 10 to 15 per cent has been made in the staff. The mill is running just now but future conditions depend on the state of the paper and pulp markets. The operations of the Keewatin Lumber Company, another associated company of the Backus Corporation, have been cut in half this year. Last year the Keewatin Lumber Company had over two thousand men engaged in logging and pulp operations, with some 22 camps over the Lake of the Woods and at Hudson. This year only seven camps will be sent out and the number of men reduced below half.

Ontario Progress in Reforestation

"We have to set our house in order so that our annual cut will not be greater than our annual growth," declared the Hon. William Finlayson, Ontario Minister of Lands and Forests, at a public gathering in Toronto a few days ago, in discussing the question of preservation and rehabilitation of timber and pulpwood wealth. "If we could put Ontario's timber policy, over a period of years, on a sustained yield basis, so that at the end of ten or fifteen years there was no more being cut than the growth, then Ontario would be able to follow the European practice and become a self-supporting timber country," he said. The Minister stated that at the present time public opinion might not be ready for bringing into operation regulations similar to those in some of the European countries, but if they could persuade the people of Ontario to regard timber as a crop, something that would be cut but would be replaced and only the annual increment taken, then he considered, they would have got to a fair starting point. We had to stop the policy of the timber as a mine and start a policy of timber as a crop. In regard to timber sales, the Minister said, except in exceptional circumstances, the department was not in the market at present. In a reference to Southern Ontario, Hon. Mr. Finlayson stated that the department had distributed this year 10,000,000 trees, and of that about one-half, he thought, went to farmers.

Backus Would Aid News Print Towns

E. W. Backus, international paper magnate, was in Toronto this week from Washington en route to Montreal where he attended a meeting of news print manufacturers. Mr. Backus stated while in Toronto that he was perfectly in harmony with the plan of Premier Ferguson to alleviate suffering in paper manufacturing towns where plants have been closed down. "There is a large over-production," he said, "and if the business were equally divided among all the mills it would mean about a five-day week basis of operation. As the situation is today some of the mills are operating close to capacity. Some are closed down entirely and some only operating fifty per cent capacity, so that suffering and hardship are being experienced by a number of communities. All our plants are operating at about 60 per cent capacity, and with a reduction in price there is only one end—a bad situation for the whole industry." The situation as regards settlers is said to be due to large supplies of pulpwood on hand at the mills—a condition general throughout the country. "That is one feature of over-production," said Charles Hurdman, Toronto, manager of the woods department of the Abitibi Power and Paper Company, Ltd. "Then the Fort William divisions of the Abitibi and Thunder Bay mill are closed down, and there is no market for pulpwood there. Up in the Abitibi district, between Hearst and Cochrane, there is not enough wood offering, but that is largely due to buying by the Kapuskasing mill. Generally speaking the mills have a lot of wood ahead." When interviewed by the PAPER TRADE JOURNAL, John H. Black, vice-president of Spruce Falls Pulp and Paper Company, Ltd., who commented upon Premier Ferguson's statements anent the situation as pretty well correct, stated that the new mill of the Spruce Falls company at Kapuskasing had only orders enough to keep two and a half machines busy out of the four installed.

Firstbrook Listing Applied For

Listing of the shares of the Firstbrook Boxes, Ltd., which is building a large paper box manufacturing plant at Mount Dennis, near Toronto, has been applied for and will shortly appear on the Toronto Exchange. The company is regarded to be doing a large volume of business in all its branches. It is stated that recent monthly volume has surpassed the best figures shown since 1918, and a favorable position also exists regarding orders in hand and the prospects for future business. The new factory being erected at Mount Dennis is in an advanced stage of construction and it will, on completion, house all the manufacturnig processes now being undertaken in separate plants, and greater efficiency of operation and quicker despatch of finished goods is expected. The siding to the plant, which will connect with both the Canadian Pacific and the Canadian National systems, is already in operation, and loading and unloading platforms are arranged at the level of the main floor. Present indications are that the plant will be ready for occupation in January next, and management plans call for the minimum disturbance in production through the change over from the old plants to the new factory. It is estimated that the wooden box division will be completely transferred in one week and the carton and corrugated section in another.

Forestry Board Investigating Drainage

Recently reference was made to the plans of the Department of Lands and Forests for Ontario in regard to the drainage of swamp sections where pulpwood grows. It was pointed out that experiments had proven that the growth of pulpwood on swampy land is much improved by drainage to conserve more fully the pulpwood resources of the province. It may be stated that the pulp and paper industry, running into hundreds of millions of dollars, is so important to Canada that every effort must be commended to preserve and to replenish the supply of raw material. The Provincial Forestry Board, headed by Dr. C. D. Howe, Dean of the Faculty of Forestry at the University of Toronto, has for several years been investigating the effects of drainage upon the growth of black spruce in the Abitibi district, and it has been found to produce a growth of timber much greater than that which takes place under swampy conditions. Cross-sections of trees about fifty years old show clearly this difference in growth. The Department is deeply interested in the problem of repro-

ducing forests on cut-over lands, and the Hon. William Finlayson will support the Forestry Board in its efforts to retrieve the errors of the past. The Minister said: "The obvious results of these experiments would be to make the drainage of pulpwood swamps in Ontario the policy of the Lands and Forests Department. It is already encouraging pulpwood operators to use other soft woods in order to lessen the encroachment on spruce reserve, and if it can at the same time increase the growth of trees we may be able to enjoy a perpetual supply of the raw material." He pointed out that the drainage of these spruce swamps would benefit the country in many ways. Some trees, like black ash, which is not as deeply rooted as others, are easily undermined by water and falling into swamps add to the tangle there, which in dry weather easily catches fire. Fires have caused greater destruction to forests than the hand of the lumberman, and the menace of fire would be greatly reduced if the swamps were drained and cleared.

High Rates for Kenora Cutting Rights

Greer Brothers, Port Arthur, were awarded cutting rights in the Gull Lake section, Kenora district, by the Ontario Department of Lands and Forests this week. There is approximately 4,500,000 feet of jack pine in the area, and the price obtained was $15.40 per thousand feet, board measure. The area comprises Blocks 5, 6 and 7, north and south of the C. P. R. Greer Brothers are extensive operators in ties and logs in the Thunder Bay and Kenora districts, and have tie contracts with the railway companies. The price paid for Gull Lake jack pine is considerably higher than the Government's upset price, and indicates keen competition in tie timber operations in the North. Because of the extensive logging and milling involved, the labor situation will be materially improved. The Department also awarded a contract for an area in the Thunder Bay district, partly burned over, being Block 5, north of the Grand Trunk Pacific, and containing about 40,000 ties and 10,000 cords of spruce pulpwood. This was sold to C. W. Cox, Port Arthur, at 30 cents per tie, and $2.25 a cord for the pulpwood. On account of the latter being so mixed with jack pine, the Government requires that all be taken out at one time.

Wirebound Company To Make Cartons

Canadian Wirebound Boxes, Ltd., has been organized in Toronto and has acquired the business of the Hamilton Wirebound Boxes, Ltd., manufacturers of wirebound boxes and corrugated paper and containers. This includes the Kilgour Manufacturing Company in Hamilton, acquired in 1920, and the Oakville Basket and Veneer Company. This year the company began the manufacture of corrugated paper containers at the Montreal plant. The company also operates a plant on Gerrard street, Toronto. The present facilities of the Toronto plant are inadequate, in view of the rapid development of business, and it is proposed to double the capacity for wirebound containers. At the Toronto plant a modern plant for the manufacture of corrugated containers will be installed in the near future. The company owns a number of valuable patents and its customers include an increasing number of prominent users of the products it makes. Directors of the company are L. A. DeLaplante, A. M. Dunn, A. J. LaPlante, James Playfair, Harold A. Green, D. L. White, Frank M. Ross and A. K. Cameron.

Notes and Jottings of the Trade

A number of representatives of Toronto paper houses were present at the inaugural dinner and meeting for the year of the Toronto Typothetae Sales Club at the Prince George Hotel a few nights ago, when Ellsworth Giest, of the R. D. Warren Paper Company, New York City, gave a demonstration of the Sales Demonstration Book which has been prepared by the Marketing Committee of the United Typothetae of America for the use of Typothetae members and their salesmen. A number of paper salesmen in Toronto are taking the course.

The death is announced in Toronto of one of Canada's best known and most brilliant lawyers in the person of George H. Kilmer, of the firm of Kilmer, Irving and Davis, barristers. Deceased was one of the founders and a director of the Abitibi Power and Paper Company and took a prominent part in guiding the affairs of that and other well-known commercial enterprises.

Dominion Boxboards, Ltd., Toronto, have appointed C. de Wolf Reid as representative for Eastern Canada. Mr. Reid has had a wide experience in the sale and manufacture of boards. He will operate from the Keefer Building, St. Catharine street, Montreal.

An unusually fine specimen of sample book has just been issued by the Howard Smith Paper Mills, Ltd., under the general title "Uses for Deckle Edge Paper in Direct Mail." It is really a gorgeous and effective piece of work. It is folded twice and the inside of the front and back folds show samples of the deckle edge papers made by Howard Smith Paper Mills, and in a pocket in the inside, specimens of some very fine pieces of printing are found. These illustrate not only style but the suitability of paper and layout of the message to be carried. On the outside of the back cover are some practical suggestions for novel and effective folders of these fine papers.

Trapped under tons of wood, when a section of the immense pulpwood pile gave way at the Kenora Paper Mills, Joseph Lisgar, a 38-year-old Hungarian workman, was almost instantly killed. Scores of workmen worked frantically to remove the wood but the man was dead when released from the huge pile.

A. P. Costigane, secretary-engineer of the Ontario Pulp and Paper Makers' Safety Association, has returned from Toronto after attending a meeting of the Technical Council of the Canadian Pulp and Paper Association at Montreal, at which an extensive agenda was dealt with prior to the coming annual meeting of the Association in Montreal in January. Among others at the meeting were: C. B. Thorne, of Hawkesbury; R. A. MacInnes, of the Anglo-Canadian Co.; John Stadler, of the Lake St. John Power and Paper Co., and H. J. Buncke, of the Abitibi Power and Paper Company. During the trip, Mr. Costigane visited the Howard Smith mill at Cornwall and the Provincial mill at Mille Roches.

A Correction

Regarding the article which appeared on page 28 of the November 22 issue of the PAPER TRADE JOURNAL, to the effect that the Wayagamack Pulp and Paper Company was switching over to a large extent from news print manufacture to production of waxed paper, we are reliably informed that the report is a misinterpretation of the facts.

While the Wayagamack Pulp and Paper Company is going to manufacture waxed paper, the two 100-ton machines in the news print plant will not switch over to other grades of paper and the news print output of the Wayagamack mill will be the same as usual.

What they intend to do is to utilize two small M. G. machines which are too small for making Kraft paper and put these machines on a sulphite paper that will make a capacity of 12 to 15 tons daily, to be used for bread wrappers,—and this in no way affects the two 100-ton news print machines.

Widmeyer Returns to Watervleit

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., November 24, 1928.—Joseph C. Widmeyer, a resident of Kalamazoo during the summer months, has returned to Watervleit to accept the post of assistant superintendent of the coating division of the Watervleit Paper Company. He was formerly with that concern.

Boston Paper Trade Association's Fall Meeting

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., November 26, 1928.—With highly entertaining speakers the fall meeting of the Boston Paper Trade Association at the Exchange Club Wednesday evening, November 21, was one of the most enjoyable ever held. Approximately 100 members and guests were present. After a reception and social half-hour, the dinner was served and the Allen H. Daugherty trio furnished instrumental music throughout the repast.

President Hubert L. Carter called the meeting to order for a brief business session, at which the secretary, F. Bendel Tracy, was instructed to cast one ballot for the election of the following new members: Regular Membership—Courtlandt B. Griffin, vice president, Carew Manufacturing Company, South Hadley Falls, Mass., proposed by Charles S. Proctor; Paul F. Moore, vice president, Westfield River Paper Company, Inc., Russell, Mass., proposed by the secretary; Alden W. Howard, president, Howard Paper Company, Boston, Mass., proposed by the secretary; Roger B. Taft, Hammermill Paper Company, Erie, Pa., proposed by W. B. Stevenson. "Limited" or "Special" Membership—Fred B. Korbel, P. P. Kellogg Company Division, Springfield, Mass., proposed by Wm. N. Stetson, Jr.; Aaron P. Mitchell, Warren Manufacturing Company, New York, N. Y., proposed by P. B. Von Olker, and Richard H. Campbell, Linton Brothers & Co., Fitchburg, Mass., proposed by Norman Harrower.

President Carter appointed the following as members of the nominating committee: John Vivian, chairman, Charles S. Baird, Charles S. Proctor and Charles A. Esty.

E. W. Cunningham Addresses Gathering

The president then introduced E. W. Cunningham, popularly known as "Bill" Cunningham, sports writer for the *Boston Post*, formerly a Dartmouth football player. Mr. Cunningham's talk consisted entirely of stories, largely humorous, including yarns in which the speaker, the late President Harding, Babe Ruth and Dempsey figured. He related experiences and events when he was assistant football coach at Southern Methodist University, where "Choc" Kelly was in the coaching department. The speaker noted the football days of a decade ago when he had just returned from the war, and the "informal" games in the South and West. His talk was a series of red hot volleys, replete with original and picturesque phrases, which elicited hearty laughter and applause from his hearers. He said that Boston has a most intelligent class of sports readers, but mentioned the stacks of letters received from various parts of the country, commenting on his reports of football games and articles about football teams, and felt that some of the criticisms were trivial.

Dr. Brown Discusses Creative Spirit

Before introducing the next speaker, President Carter noted that the Boston Paper Trade Association had existed since 1886 and had always been popular with the paper men, who always enjoyed themselves at the meetings and came to think of something else besides paper.

He then presented Dr. Rollo Watter Brown, a widely known author, whose subject was "The Creative Spirit and Business." Dr. Brown spoke of the creator as one who took the elements of life and put them together in new combinations and variations, such as the architect, cartoonist, fiction writer, poet and others. The person like Pollyanna will never do anything important in life because such a man accepts the world as something finished. The creator has the experience of coming to life with something of warmth, an emotional warmth which brings a certain divine stabilization of judgment. The creator also comes to the result after all the work and has the victorious attitude. The creative ability varies only in degree. Something before birth or after influences the creator. The speaker cited the versatility of Victor Hugo.

He spoke also of the effects of suppression of desire and ambition to do particular things, noting the case of a boy who wanted to be an architect and was made vice president of a corporation. The creative classes are intellectually the most honest in the world, said Dr. Brown, who gave a number of illustrations, including a story of Edison.

The best business, he held, is something which supplies man with his highest needs. The creator, if given a chance, will make over his environment. Dr. Brown noted the need of changes politically in the government of Indiana and Illinois, saying that in Chicago the Mayor is the laughing stock of the country. Political conditions need to be made over. The *Congressional Record* has a high percentage of humor. There is need of improvement in communication, he maintained, noting the congestion in the big cities. A similar thought might be applied to beautifying the face of the earth, and the bill boards be done away with. There are 5,000 bill boards from New York to Philadelphia. The creator is a man who can see all these things and see that a change is necessary.

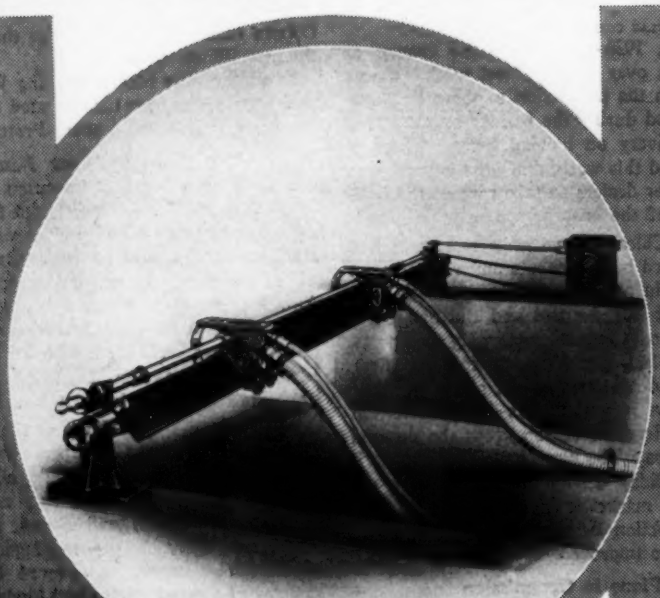
The creator encounters difficulties in the high organization of industry. Some one should design a Pullman car so that the berths could be made to fit everybody, but there would naturally be opposition. The speaker met on the train coming from New York a man who had invented a new anthracite coal, taking bituminous coal and making briquettes. Why can't this be put on the market? Because people haven't become rebellious enough against smoke. We ought to show interest in these things. All the creator requires is to be given a chance. He needs the kind of intellectual support you can give him.

Those Present at Meeting

At the close of Dr. Brown's address, the speakers were given a rising vote of thanks. Those present at the meeting were the following: Hubert Carter, B. H. Cunningham, M. O. Byrne, Rollo Watter Brown, Samuel F. Holmes, Charles A. Esty, T. Bendal Tracy, T. H. Casey, E. B. Dick, W. J. McClellan, Erving F. Lowe, Walter A. Lowe, N. Harrower, Frank A. Juckett, John F. Wilson, Frank H. Winter, Nelson Feeley, R. A. Wright, E. D. Bement, Royal H. Casey, H. E. Lindquist, E. R. Lyman, J. L. Munro, Percy D. Wells, Lionel A. Walden, Charles C. Walden Jr., T. Charles Casey, Herbert J. Casey, Ira B. Ogden, Harold T. Coleman, Leon H. Young, R. M. Stone, F. H. Blackman, John F. Blackman, Arthur M. Burr, E. H. Stone, Carl G. Fowler, Fred B. Korbel, John H. Brewer, Edward L. Wood, W. N. Stetson Jr., Percy E. Weston, Aaron P. Mitchell, Frank C. Cate, John B. Rigg, W. W. Binford, F. H. Merrill, John F. Kuster, Richard F. Piper, S. W. Bartlett, Joseph D. Snell, W. B. Stevenson, Charles S. Proctor, Walter L. Muzzey, P. B. VanOlker, Chas. W. Fields, H. C. Fowler, R. H. Welsly, John Kelley, Charles C. Carpenter, C. Frederic Wellington, Walter P. Simonds, Harry R. Woodward, Walter M. Pratt, Charles H. Wood, G. M. Graves, Irving N. Esleeck, F. Raymond Andrew, Paul S. Fiske, Wm. B. Livermore, Edgar P. Hay, F. B. Cummings, H. C. Thayer, W. A. Merrill, H. C. Upham, W. J. Very, H. H. Griswold, Dexter B. Coffin, C. W. Townsend, William Ross, C. W. Nelson, H. H. MacGilpin, Arthur C. Hall, Edward H. Little, Max Frank, Nathan S. Clark, Hartley A. Hurlbut, Herbert A. Lindenberg, Arthur E. Ham, James L. Ham, E. S. Clark, and E. A. Crowell.

The officers of the association for 1928-1929 are as follows: President, Hubert L. Carter; First Vice President, Albert R. Smith; Second Vice President, Charles A. Esty; Treasurer, Thomas H. Casey; Secretary, F. Bendel Tracy.

Every Felt Needs To Be Conditioned



BIRD MACHINERY

Your felts are always the same, always clean, soft and porous over their entire surface as long as they're on the machine, when you have Vickery Felt Conditioners.

Think what a great operating advantage this is.

BIRD MACHINE COMPANY
South Walpole . . Massachusetts

Vickery Felt Conditioner

Demand for Paper Fairly Active in Chicago

Production Being Maintained in Heavy Volume to Take Care of Holiday Business—Fine Paper Market Exhibits Strong Undertone—Book and Cover Papers in Fair Request—Quotations on Various Grades Remain Firm

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., November 26, 1928.—There is little change in reports in the Chicago district over those of last week. Prices remain firm in most cases with the production in those lines experiencing their greatest demand during the holiday season going forward rapidly to insure delivery on holiday items. There is very little general news reported this week, due for the most part to the continued efforts of paper dealers to take care of the holiday trade and make the best of the busy season.

According to reports from Chicago news print representatives the 1929 prices are not yet settled but shipments under contract at this time are heavier and, all in all, conditions seem to be fair. Book and cover papers are in fair demand and the fine paper market, just about at the peak of its season according to reports, finds prices unchanged over last week, remaining very firm. There is a decidedly better tone in this grade of paper. One of the grades in which production is reported as being somewhat behind is the tissue market. Here the season keeps the demand booming along in excellent shape. The wrapping paper market is also good, with this year's holiday demand likely to prove the best in some years. The board market is in excellent shape with prices steady and a big production being well taken up. The lower grades of waste paper are improved.

Nekoosa-Edwards Plane in Commission

Inasmuch as the plane is to travel many times between Port Edwards, Wisconsin, and Chicago the arrival of the "Nepco" owned by the Nekoosa-Edwards Paper Company created quite a bit of comment in Chicago paper circles. Recently a number of Pilcher-Hamilton salesmen returned from a trip to the Nekoosa-Edwards mills in the big plane which has been purchased for the purpose of making business trips to and from Nekoosa-Edwards distributors in all parts of the United States.

According to the latest issue of "Bookanwrap" published by the Pilcher-Hamilton-Daily Company, the Nepco is a Ford trimotored all metal plane, built entirely of Duralumin, accommodating ten passengers and having a capacity of 3900 pounds. The Pilcher-Hamilton salesmen who made the trip were enthusiastic over the possibilities offered by this new factor in business and they are said to have suffered no apprehensions as to their safety, probably due to the skill of their pilot, Captain Leslie G. Mulzer, who has a record of 2,500 hours of flying time to his credit.

Advertising Wrapping Paper

The National Business Conference brought out some excellent advertising matter for the use of those paper manufacturers making wrapping paper. One of the speakers, Alden W. Cummings, of the Dennison Manufacturing Company, referred to the package as " a gay and decorative advertisement for your goods." he further stated that "good color applied to packaging will make even common-place goods attractive." "Good packaging is a valuable advertising medium, the means of making your product the focal center at all times." The Pilcher-Hamilton-Daily Company has already made use of this statement in the advertising of "Adwrap," called "the wrapping paper that advertises."

New Paper Houses Chartered

One of the newest paper houses to come into business in Illinois is the Super-Service Company, organized and incorporated in Freeport, Ill., and now actively engaged in the sale of wrapping paper, twine, etc. George H. Ford, Arthur Slusser and C. O. Osborn have been designated as the incorporators and officials of the new Illinois company.

In Chicago the Ideal Wrapping Products Company, 3749 Montrose avenue, has been incorporated for $20,000 with Louis Marcus, Mortimer Protus and Isadore Protus as the incorporators.

Chicago Paper Association's Plans

The Chicago Paper Association, with its annual meeting out of the way and its officers elected for the ensuing twelve months, as laying plans to carry out the work suggested by the Stevens-Harrison-Jordan firm of engineers who are acting as business advisors and counselors for the association. The election of Leo Altholz as president signified the confidence the members have had in his efforts to improve the Chicago coarse paper market in many different ways. Together with D. F. Peck as vice president and James Donahue as secretary and treasurer the active local organization is expected to increase its effectiveness in the coming year.

News of the Trade

The Paper Mills Company, 517-525 South Wells street, has recently sent out to the trade a small booklet describing an attractive line of imported and novelty papers including hand made greeting cards and sheets, imported lamp shape papers, decorative papers, fancy wrappings and exclusive correspondence papers. The decorative covered booklet contains actual loose samples of various grades and kinds of decorative paper including unique papers imported from Japan, Korea, Italy, France, England, Spain, Belgium, Holland, Sweden, Switzerland, Austria, Germany, India and Czecho-Slovakia. Marble Papers, Italian Block Papers, Gold and Silver Papers, Japanese Tissues, Etching Papers, Wood Veneered Papers and Vellums. The entire line is displayed at the offices of the Paper Mills Company.

Plans are already being made for an Exposition of Progress to be held at the new Chicago Stadium and to be the first big event held in the big stadium. The Exposition is to combine a business show and convention. It is expected to bring the manufacturers in direct contact with 50,000 merchants, jobbers and consumers daily. Though not scheduled until April 5 the Exposition is already producing some direct mail efforts of benefit to local paper merchants and will undoubtedly prove a drawing card for business houses featuring paper products.

Number 6 of a series of direct mail booklets being sent out to the trade by the S. D. Warren Company has recently arrived in Chicago printing and advertising offices. The 38 page booklet is printed on Warren's Cumberland Coated Book with the cover in Warren's Artfold. The booklet provides a splendid selling talk for the Warren line, carried in Chicago by the Chicago Paper Company, Paper Mills Company and the Swigart Paper Company. Included are a number of illustrations, the half-tone engravings being on 133-screen with the color engravings on 133-screen with the four-color process. A fine tribute was paid the booklet by one of Chicago's well known advertising men who declared that "while the booklet is advertising Warren papers it is also a tremendous aid to the paper trade as a whole in that it signifies what can be done with good paper, good printing and imagination plus actual selling experience."

Homer Ferguson, of the Champion Coated Paper Company, Hamilton, Ohio, visited in Chicago two days of this week.

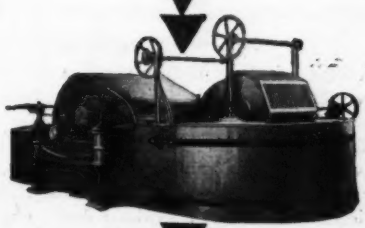
The Eastern Manufacturing Company has recently issued a folder containing a number of specimens of Atlantic Bond and showing their actual uses in national advertising campaigns. The

(*Continued on page 58*)

Modernized Beaters

THE Downingtown Holland Beater incorporates every refinement for simplicity and economy of operation required in a modern beater room.

Write for our new 20 page bulletin No. 113 describing our complete line of modern beaters,—no obligation whatever.



DOWNINGTOWN
Manufacturing Company
Downingtown Pa. U.S.A.

Large Timber Cut for Wisconsin Paper Mills

Pulpwood Crews Will Be Well Represented During Winter Season and Will Get Out Large Consignments for Badger State Paper Industry — Nekoosa-Edwards Airplane Brings Leading Executives From Chicago to Wisconsin Rapids

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., November 26, 1928.—About 100,000,000 feet of hemlock and hardwood timber will be cut in the main logging sections of northern Wisconsin, largely in Sawyer County, during the winter season. A crew of 5,000 men will be employed, according to present estimates.

While a large part of this cut will be taken by lumber companies, still pulpwood crews will be well represented and will get out large consignments for the mills of Wisconsin. These men operate on a piece work basis, and will follow the lumbering crews, selecting pulpwood trees in each section. The cut will be somewhat smaller than in past years because of the dwindling wood supply.

Cost Experts Discuss Bonus System

Use of the bonus system was discussed by members of the Wisconsin Division of the Cost Association of the Paper Industry at its quarterly meeting at Menasha, Wis., last week. Twenty representatives of various mills were present, including some from Northern Michigan.

The principal speaker on this topic was L. F. Larkin, of the Milwaukee Electric Railway and Light Company. Experience with the plan in his company had reduced the number of employees, he said, and also has increased their efficiency. Labor is one of the most costly elements of production, he said, and whatever can be done to cut this item is of advantage. Bonuses also have their value among office workers, Mr. Larkin declared. He cited instances where typists took over greatly increased amounts of work when the system was revised.

H. J. Bock Analyses Standard Costs

Avoidance of a hit or miss budget plan was stressed by H. J. Bock, of Chicago, in an address on "Standard Costs and Budgeting." He is associated with the firm of Stevenson-Harrison & Jordan, cost accountants and engineers. A production analysis should be made, he said, and the question of raw material supply should be taken into consideration when budgeting supplies. Plant equipment also should be analyzed, to determine first whether it is what the mill needs, and whether the plant is able to produce on a proper basis. With these fundamentals thoroughly understood, said Mr. Bock, a budget can be made up that will be accurate and not a matter of guesswork.

The meeting closed with a dinner and informal discussion of business matters. R. D. Barron, of the Marathon Paper Mills Company, Rothschild, Wis., is president of the Wisconsin-Michigan division, and I. M. Carney, of the Tomahawk Kraft Paper Company, Tomahawk, Wis., is secretary.

Nekoosa-Edwards Airplane Party

Another airplane party was given last week by the Nekoosa-Edwards Paper Company, of Port Edwards, Wis. Its trimotored Ford monoplane brought some of the leading paper company executives from Chicago to Wisconsin Rapids, Wis. to visit the two Nekoosa-Edwards mills, Nepco lake and the reforestation project. They made the entire journey within the period of a customary working day. The party included: J. S. Danehy, general manager of the Schwartz Paper Company; Howard B. Hollis, president of the Hollis-Duncan Paper Company; Raymond Hollis, secretary of the same company; E. A. Hall, general manager of the Bilcher-Hamilton company; William Shapland, president of the Fred Rantz Paper Company; Calex Campbell, general manager of the Middle States Paper Mills Company; William Chuckman, president of the Chuckman and Sons Paper Company; Barny Sablothy, general manager of the Tapajna-Gary Paper Company; Mortie Inlander, manager of the Inland Brothers Paper Company; Arthur Bahr, Jr., and Neal Nash, Chicago representatives of the Nekoosa-Edwards Paper Company.

Dr. Ritter Addresses Wisconsin Chemists

Application of chemical processes in the making of wood pulp was explained before the Wisconsin division of the American Chemical Society, at a meeting at Madison, Wis., last week by Dr. George R. Ritter. The speaker is on the staff of the United States Forest Products Laboratory at Madison. He showed how wood pulp is chemically treated, and correlation of this work to the paper industry.

Slides were used to show the convention how the wood is broken up, exposed to heat of 110 degrees centigrade for two hours, then exposed to heat of 150 degrees, and put through a beating process for twenty to eighty minutes. Tests for bursting, tearing and folding also were explained. Future study of complex wood structures will be made by X-ray, Dr. Ritter said.

Theodore Zager Weds

Announcement is made of the marriage of Theodore Zager, of Port Arthur, Ont., and Miss Irene Nickels Carson, of Fort William, Ont. Mr. Zager is connected with the Thunder Bay Paper Company, of Port Arthur, a subsidiary of the Consolidated Water Power and Paper Company. His father, Albert Zager, is one of the superintendents of the Thunder Bay mill.

Gillette Fibre Mills Firmly Established

[FROM OUR REGULAR CORRESPONDENT]

STILLWATER, N. Y., November 24, 1928.—The Gillette Fibre Mills are now firmly established in their new paper mill property recently acquired from the Wood Flong Corporation. The property has undergone considerable improvements and the several mill units and boiler house are deriving operating power from the Hudson River. The Wood Flong Corporation has removed its paper mill machinery to Hoosick Falls where operations have already been started in leased quarters.

The Gillette company is engaged chiefly in the manufacture of electrical insulating fiber board and specialty paper. By means of processes which have been developed through years of research by Harold L. Gillette, president of the firm, a fiber board is being turned out which combines flexibility with a high degree of insulation and strength, heretofore found only in rigid boards. Among the chief secondary products of the new company is a durable fiber trunk board used in the manufacture of trunks and other articles of luggage. The insulating and trunk boards are now on the market and in use and it is expected that allied lines will be developed in the near future as soon as the organization is sufficiently developed to take care of current orders. The General Electric Company has already adopted the product for use in its large motors, electric refrigerators and other appliances.

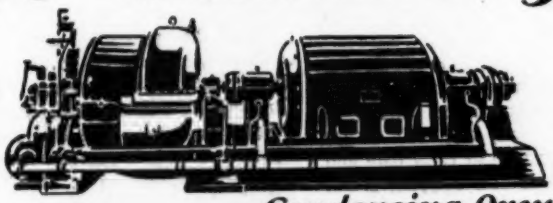
Franklin Heads Detroit Paper Products

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., November 24, 1928.—Seymour H. Franklin has been elected president of the Detroit Paper Products Corporation to succeed A. J. Maas, retiring. This concern is planning a large addition to its plant.

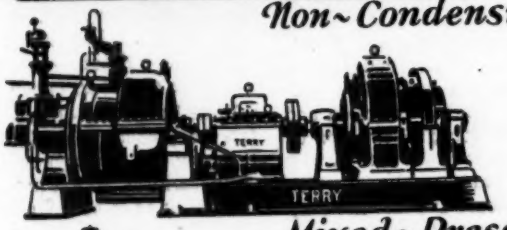
Terry Generator Units

are available for

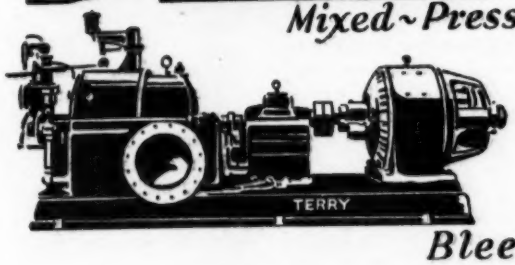


Condensing Operation

Non-Condensing



Mixed-Pressure



Bleeder

—And also in special purpose designs.

The units are built in sizes up to 1000 KW for a.c. or d.c. A Terry engineer will be glad to discuss with you their applications and to tell you how they reduce process steam and power costs.

The Terry Steam Turbine Company

TERRY SQUARE, HARTFORD, CT.

OFFICES IN PRINCIPAL CITIES

Steam Turbines-Gears-Shaft Couplings

T-1018

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

St. Louis, Mo.—The Emery-Carpenter Container Company, Long and June streets, Cincinnati, Ohio, manufacturer of fiber containers, etc., has arranged for lease of portion of building at Clark avenue and Second street, St. Louis, and will occupy new branch plant. Equipment will be installed at early date and initial production will be devoted largely to fiber shipping drums and kindred specialties. The machinery installation is reported to cost more than $40,000. St. Louis offices of the company are at 705 Olive street.

East Pepperell, Mass.—The Cornell Multi-Wall Valve Bag Company, East Pepperell, manufacturer of heavy paper bag stocks, has completed plans for erection of a new plant unit on local site, 100x160 feet, reported to cost in excess of $55,000, with equipment. General building contract has been let to H. L. Shattuck, Inc., 208 South street, Manchester, N. H. H. B. Larnam is treasurer.

Watertown, N. Y.—The St. Regis Paper Company, Watertown, is concluding negotiations for purchase of plant and business of Cellulosa Cubana, Inc., Havana, and will consolidate with organization. Purchasing company plans general expansion and improvement program in Cuba district, including construction of addition to mill of acquired company, and erection of entirely new mill on site near Havana, project reported to cost more than $500,000, including machinery. A power house and machine shop are planned in connection with last noted project.

Shelbyville, Ind.—The Kennedy Car Liner and Bag Company, Hodell and Prospect streets, is reported planning new one-story addition to plant, to cost in excess of $40,000, with equipment. F. Kennedy is president, in charge of expansion.

East Newark, N. J.—The Specialty Paper Box Company, 75 Hudson street, Newark, has leased the first and second floors in the mill of the Clark Thread Company, Central and Passaic avenues, East Newark, 60x200 feet, and will establish a new factory at that location. Possession will be taken early in February, when leased quarters will be remodeled and improved and new machinery installed. Harry Engle is president.

Buffalo, N. Y.—The James S. Hannon Company has been organized with a capital of $10,000, by James S. and Luke E. Hannon, 721 West avenue, to establish and operate a local factory for the manufacture of wall papers. Early production is planned. Eric McLean, 375 Porter avenue, Buffalo, is also interested in the new organization.

Mobile, Ala.—Southeastern Power and Light Company, Birmingham, Ala., operating the Alabama Power Company, Birmingham, and other utility properties, has organized a new subsidiary, to be known as the Southeastern Production Company, to carry out its proposed power project at Mobile, for service at the mill of the International Paper Company, as referred to in these columns last week. Site has been secured at Hog Bayou, and work will begin on foundations at an early date. The station will be steam-operated, with capacity of 10,000 hp. and 135,000 pounds of steam per hour. It will furnish both electric service and steam at the paper mill. Entire project will cost $1,250,000, with equipment, instead of a smaller sum, previously noted. Construction of plant will be in charge of the Dixie Construction Company, Birmingham, another affiliated interest.

Appleton, Wis.—The Fox River Paper Company, 401 South Appleton street, is reported having plans under way for a new one-story addition, to be used largely for coal storage and distributing service. Estimated cost, not announced. Orbison & Orbison, 110 West College avenue, Appleton, Wis., are architects and engineers.

Chicago, Ill.—The Illinois Bag Company, 1428 Blue Island avenue, recently formed with a capital of $15,000, plans operation of local plant for the manufacture of paper bags and other containers. Benjamin Shulman and Max Shore head the new company.

Baltimore, Md.—Leeson & Price, Baltimore, dealer in paper manufacturers' supplies, etc., have leased the one-story building at 522-24 North East street, totaling about 5,000 square feet floor space, and will occupy for a new storage and distributing plant. The lease carries an option to purchase the property.

West Point, Va.—In connection with its proposed local mill for the production of kraft papers, the Albemarle-Chesapeake Company, Inc., has approved plans for a new power plant to cost about $275,000, with equipment, and will push construction on the unit so as to be ready for service when the new mill is available. The company will secure pulp from the Chesapeake Corporation, with local plant, with which it is affiliated.

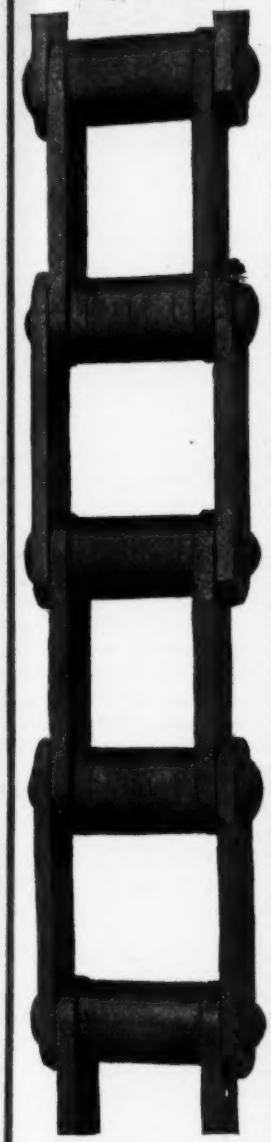
Detroit, Mich.—The Detroit Paper Products Company, 5800 Domine street, is planning erection of a new plant unit to double the present capacity, reported to cost in excess of $85,000, with equipment. Seymour H. Franklin has recently been elected president of the company, succeeding A. J. Maas, who has retired from the business.

Wilmington, Del.—The Thomas Wall Paper Company, 103-5 Market street, is said to be planning the early rebuilding of the portion of its storage and distributing plant recently destroyed by fire with loss reported in excess of $40,000, including equipment and stock. J. E. Strickland is manager.

Valparaiso, Ind.—The Fibroc Insulting Company, Valparaiso, manufacturer of fibre insulating products, has plans under way for a new plant unit of sawtooth roof type, to be one-story, 112 x 350 ft., with power house on adjoining site, reported to cost close to $100,000, with equipment. Lockhart & Fett, Associates Building, South Bend, Ind., are architects, and will soon take bids on general contract.

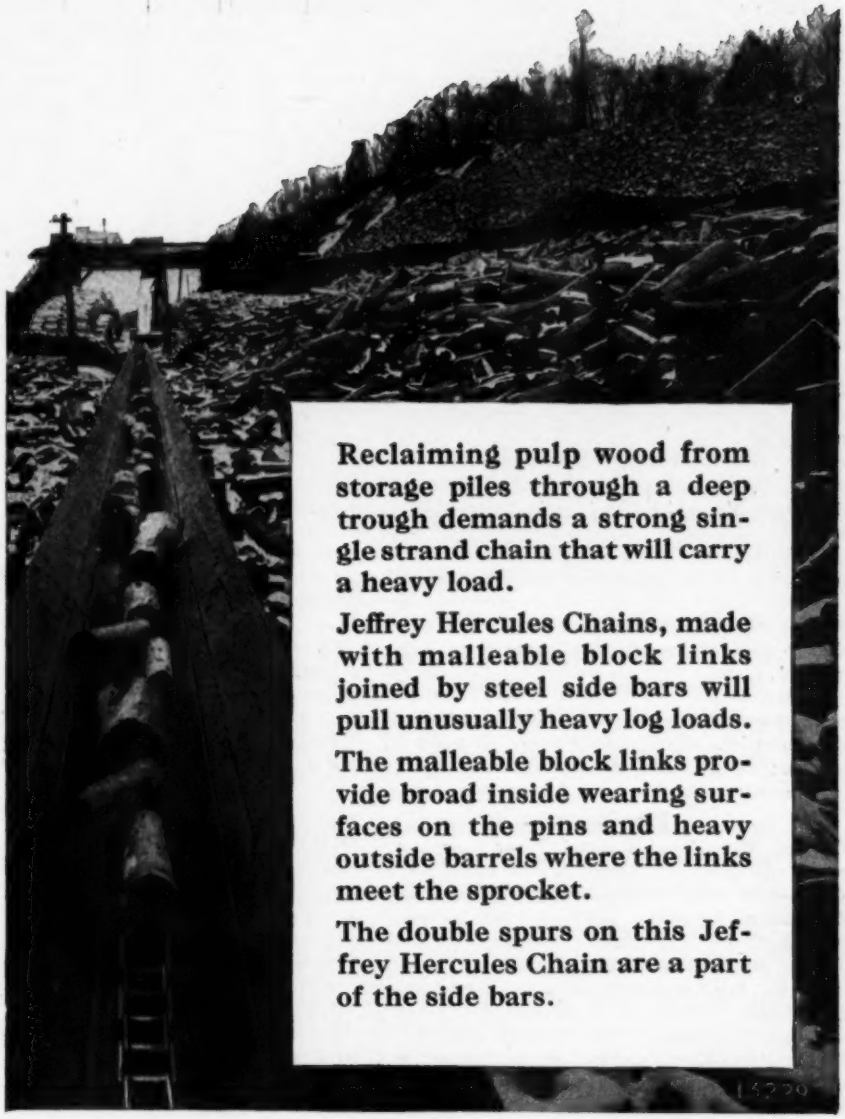
Laurel, Miss.—In connection with a new addition to its local mill for the manufacture of structural insulating board, the Masonite Corporation will carry out further expansion in the near future, and has secured a license to operate a plant in Sweden. It is proposed to begin the construction of the foreign mill at an early date, having the unit ready for service in the spring; it will develop large capacity. Estimate of cost has not been announced. With the new extension at Laurel, recently reported in

Jeffrey Chains for Every Service



Jeffrey Hercules Chain for drives and rough service handling pulpwood, coal, etc.

A Long Chain Haul



Reclaiming pulp wood from storage piles through a deep trough demands a strong single strand chain that will carry a heavy load.

Jeffrey Hercules Chains, made with malleable block links joined by steel side bars will pull unusually heavy log loads.

The malleable block links provide broad inside wearing surfaces on the pins and heavy outside barrels where the links meet the sprocket.

The double spurs on this Jeffrey Hercules Chain are a part of the side bars.

The Jeffrey Manufacturing Company

931-99 North Fourth St., Columbus, Ohio

New York, Buffalo, Utica, Rochester, N. Y., Philadelphia, Pittsburgh, Scranton, Pa., Boston, Cleveland, Cincinnati, Chicago, Detroit, Milwaukee, St. Louis, Denver, Salt Lake City, Charleston, W. Va., Atlanta, Birmingham, Houston, Montreal

51 YEARS OF SERVICE TO INDUSTRY

JEFFREY

MATERIAL HANDLING EQUIPMENT

Jeffrey Products

Elevators
Conveyors
Portable Loaders
Coal and Ashes Handling Equipment
Skip Hoists
Chains and Attachments
Sprocket Wheels—Gears
Crushers—Pulverizers
Sand and Gravel Handling, Washing and Screening Equipment
Locomotives
Coal Mine Equipment
Tipple Equipment
Ventilation Fans

these columns, the company will give employment to about 100 additional operatives, making a total working force of 400 persons. Sawmill waste is used as raw material for production, and supplies are being secured from the mills of the Wausau Southern Lumber Company and the Marathon Lumber Company, as well as other such plants in the vicinity of Piave, Miss.

West Springfield, Mass.—The Rising Paper Company has been chartered under state laws with a capital of $1,199,500, by interests identified with the B. D. Rising Paper Company, with mill at Housatonic, Mass., and will be affiliated with that company It is reported that it will take over and expand the present organization. Walter J. Raybold, vice-president and treasurer of the Housatonic company, is president of the new concern; Benjamin A. Franklin is vice-president; and Horace A. Moses, Mittineague, Mass., president of the Strathmore Paper Company of that place, has been elected treasurer.

New York, N. Y.—Fire, Nov. 19, damaged a portion of the plant of the Melrose Paper Stock Company, 18-22 East 133rd. street. An official estimate of loss has not been made. The damage will be replaced.

Shelton, Wash.—The Rainier Pulp and Paper Company, Shelton, operating a sulphite pulp mill, has disposed of a block of common stock, to total about $3,325,000, a portion of the fund to be used for general financing, expansion, etc. E. M. Mills is president.

St. Louis, Mo.—The Envelope Manufacturing Company, 214 Chestnut street, has filed plans and will proceed with the erection of a new plant at Second Street and Clark Avenue, to be one-story, 125 x 150 ft., reported to cost about $80,000, with equipment. The company will concentrate production at that location and plans large capacity. Charles F. Pflanze is president.

Cap De La Madeleine, Que.—The Bates Valve Bag Company, Ltd., manufacturer of special paper bag stocks, has awarded a general contract to the Stuart Construction Company, Sherbrooke, Que., for the erection of a new local plant units at Cap de la Madeleine. It will be one-story, 100 x 200 ft., reported to cost about $65,000, with equipment. Headquarters of the company are at Chicago, Ill.

New Companies, Etc.

Chicago, Ill.—The Associated Paper Company, 1529 North Halsted street, has filed notice of increase in capital from $19,000 to $40,000, for expansion.

Harrisburg, Pa.—The Cahill Carton Company is being formed by local interests under state laws, to establish and operate a factory for the manufacture of paper and cardboard cartons, boxes, etc. Application was made for a state charter on Nov. 26. The new company is represented by Sterling G. McNees, Harrisburg, attorney.

Forest Park, Ill.—The William H. Gardner & Sons Company, 7326 Roosevelt Road, has been incorporated with a capital of $25,000, to deal in building papers and kindred products. The company is headed by William H. Gardner and William H. Gardner, Jr.

Chicago, Ill.—E. H. Vavra & Co., 549 West Washington Boulevard, manufacturer of paper boxes, containers, etc., has arranged for a change of company name to the Rock River Paper Company.

Harper to Leave B. D. Rising Paper Co.

R. O. Harper, who is one of the outstanding authorities regarding the manufacture of very fine papers, will leave the B. D. Rising Paper Company of Housatonic, Mass., on December 1, as a result of its recent merger with the Strathmore Paper Company. Mr. Harper is vice president and general manager of the B. D. Rising Paper Company and has been with the company 28 years, and was with the Worthy Paper Company for seven years. Mr. Harper will be available for a new appointment after December 1.

Radical Cut in Box Board Prices

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., November 26, 1928—What is said to be an unprecedented cut in box board prices, announced by the Robert Gair Company, has resulted in a withdrawal from the market of the majority of manufacturers, according to reports here. In this market, chip board, formerly quoted generally at $42.50, is now offered at $30, and filled news board, formerly at $45, is now quoted at $32.50, although some say it is offered at $30. It is understood that a large volume of orders has been secured at the lower prices, although a number of box board dealers here say that they have withdrawn from the market, as the mills they represent decline to sell at the cut prices. In some instances board manufacturers sold at the lower figures at first, but have since put their prices back to former levels. Orders are said to have been taken for prompt shipment only. The United Paperboard Company declined to take any orders on the new scale. From one concern producing a comparatively small amount of box board word has been received that costs have not lowered and that the winter is ahead. Similar reports are heard from other manufacturers. The opinion is expressed that the reduced scale of prices will be in effect for a short time only.

Members of the National Paper Box Manufacturers Association have received the following communication, written under date of November 21, from Frank S. Records, executive secretary of the association:

"To the Members: A decided break in the box board market occurred yesterday in the Baltimore, Philadelphia, New York and Boston centers. Certain mills are offering chip at $30.00 and news at $32.50 in New York and Boston. Other mills in New York decline orders under $40,000 chip and $42.50 news. Baltimore and Philadelphia quotations are the same for chip and news.

"Telegraphic requests to other reporting centers bring the information that both chip and news board prices remain unchanged. Just how long the present low prices reported in the eastern markets will remain in force cannot be determined.

"Quotations as of November 20 have been received from the following cities:

	Chip	News
Baltimore	$32.50 f. o. b. mfrs. city	$32.50 f. o. b. mfrs. city
Philadelphia	$32.50 sidewalk	$32.50 sidewalk
New York	$30.00 f. o. b. mfrs. city	$32.50 f. o. b. mfrs. city
Boston	$30.00 f. o. b. mfrs. city	$32.50 f. o. b. mfrs. city
Chicago	$40.00 f. o. b. mfrs. city	$42.50 f. o. b. mfrs. city
St. Louis	$40.00 f. o. b. St. Louis	$42.50 f. o. b. St. Louis

It is stated here in Boston that single manila lined chip has been cut from a minimum price of $52.50 to $45.

In fine paper, wholesale houses have been transacting at least a moderate business and in some cases a very good volume of orders has been secured. Values remain steady at the same levels. The condition of the coarse paper market is fair, although in some quarters it is reported as rather quiet for this time of the year.

Old papers are steady. Rags are rather quiet. In foreign stock, dark cottons are weaker, owing to less demand. This commodity is now quotable at 1.50 to 1.55, compared with a former range of 1.55 to 1.60.

Deubener's Shopping Bags

INDIANAPOLIS, Ind., November 24, 1928.—Deubener's Shopping Bag, of Indianapolis, reports sales and shipments of shopping bags for October as reaching the greatest volume in their history and that since election orders and inquiries are heavier for November than usual.

E. M. Branson Joins Michigan Carton Co.

E. L. Branson is now with the Sefton Manufacturing Company of Chicago. He was formerly chief chemist of the Michigan Carton Company, Battle Creek, Mich.

Steam Savings are PERMANENT Savings with TRANSITE HOODS

Transite is made of Asbestos Fibre and Portland Cement, formed under hydraulic pressure into a dense, homogeneous, monolithic sheet

WITH Johns-Manville Transite Hoods, every pound of steam saved represents a clear credit on the right side of the ledger. With all other hoods, constructed either of metal or of wood, continuous upkeep costs—repainting, repairs and replacements—materially lower the savings accomplished.

Because Transite itself is absolutely fireproof, unaffected by heat or moisture, and is highly resistant to acids and structurally strong, Transite Hoods are practically indestructible and permanently free from repair costs. The special Johns-Manville panel-type construction eliminates costly machine shutdowns during hood erection and machine repairs.

Only with Johns-Manville Transite Hoods can you obtain the ideal combination of reasonable first cost, permanence without maintenance, absolute fireproofness, accessibility to machine parts, and a lasting high efficiency.

Johns-Manville Transite Hoods are built both in stanchion supported and suspended types—individually designed to fit each particular installation. We have had 10 years' experience in their construction. The advice of our engineers is freely offered you. Use the coupon for the full story.

Reasonable First Cost

Johns-Manville Hoods are remarkably low priced. Our large production, and low fabrication costs make this possible. Erection costs are slight, only eight or ten laborers being required to work with our skilled erection foreman who supervises the work.

Fast Erection

90% of the work on Transite Hoods is done before shipment. A complete hood is delivered in convenient, easily handled knocked-down form. Assembly may be made on one or two week-end shutdowns.

Easy Access at All Times

The panel construction of Transite Hoods makes all parts of the machine readily accessible without in any way disturbing initial efficiency. The apron is hinged, permitting complete and convenient access whenever necessary.

Structurally Strong

Although all of the panels are made up on comparatively light steel angles, the method of assembling allows for a steel framework sympathetic throughout, structurally strong, and capable of meeting all of the requirements of this service.

Vapor Tight—No Drip

Joints between panels are sealed with asbestos gaskets which positively prevent filtration of vapor into the room and protect steel angles from contact with vapor. The under side of the hood is absolutely smooth, eliminating drip from fasteners and supporting members.

MASTER of ASBESTOS
Johns-Manville
TRANSITE
PAPER MACHINE HOODS

JOHNS-MANVILLE CORPORATION
Paper and Lumber Industry Section
New York, Chicago, Cleveland, San Francisco
Branches in all large cities
Canadian Johns-Manville Co., Ltd., Toronto
Please send me copy of your booklet, "Controlling Condensation."
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Paper Industry to Support N. Y. U.

Twenty-eight representatives of the paper industry in the metropolitan area were guests at a luncheon given in the interests of New York University by Percy S. Straus, vice-president of R. H. Macy & Co., at his offices in the Macy Building, Herald Square, on November 13. Mr. Straus is a member of the University's Council and chairman of the Executive Committee of its Centennial Fund.

He explained that this was one of a series of luncheons at which he was telling the story of New York University to the business and professional leaders of New York City. He told how the University was founded with the unique aim of bringing education closer to the needs of all classes of intelligent persons, and how in living up to that purpose it has developed manifold contacts through which it is rendering definite services by meeting particular demands of the city's commercial and professional activities. He also made clear that the University was not a city or state institution, and that to carry on its task of educating annually more than 33,000 students it was almost entirely dependent upon student fees.

To relieve this situation the University administration, he stated, is now turning for financial support to the leaders of business and the professions, just as, nearly a hundred years ago, the founders of the University sought the initial capital from similar leaders, realizing that the benefits conferred by such an urban institution warrant contributions from representatives of all branches of the city's activity.

William E. Rudge, who is on the Printing Advisory Committee of the University's College of Fine Arts, told of the helpful work the College is doing in the teaching of printing. He explained how one class last year carried out the whole process of making a book from obtaining the manuscript to the binding of a volume.

Dr. James B. Munn, acting dean of the College of Fine Arts, declared that one of the paramount services of an urban university is cooperating with the trades in the community in which it is located. He pointed out that the University through its varied connections with trades and industry has been helpful in creating new styles in fabrics, new furniture and jewelry designs, and how with the aid of commercial chemists it has opened the way for new and important biological discoveries.

Professor Philip O. Badger, Assistant to the Chancellor of New York University, explained the University's plans for strengthening its contacts with trades and professions of the city.

At the close of the luncheon Simon Bergman, of the Tulip Cup Corporation, was elected chairman of a committee from the trade to cooperate with the University in this project and to organize the trade for definite financial support. The following were chosen to serve with him on the committee: H. P. Andrews, of the A. P. Andrews Paper Company, Inc.; Hugh J. Chisholm, of the Oxford Paper Company; Lewis A. Alliger, of the Whitehead & Alliger Co., Inc.; William E. Ebbets, of Coy, Disbrow & Co., Inc., and Frank I. Libbey, of Gerbereaux, Dufft & Kinder.

Those present at the luncheon were: Paul R. Bendix, Bendix Paper Company; Simon Bergman, Tulip Cup Corporation; H. M. Cook, Vandewater Paper Company, Inc.; H. P. Andrews, H. P. Andrews Paper Company; Hugh J. Chisholm, Oxford Paper Company; Harry Edwin Roden, Metropolitan Paper Box Manufacturers Association; Lewis A. Alliger, Whitehead & Alliger Co., Inc.; Wm. E. Ebbets, Coy, Disbrow & Co., Inc.; H. W. Doremus, Chas. F. Hubbs & Co.; E. H. Beekman, Box Board & Lining Company; Henry M. Read, Milwaukee Lace Paper Company; E. A. Westfall, H. G. Craig & Co., Inc.; Owen Shepherd, International Paper Company; Max Weill, Mutual Paper Company; H. A. Sheesley, Continental Paper and Bag Mills Corporation; Benj. Gottesman, Hudson Trading Company; John A. Owen, Jr., American Writing Paper Company; Oswald F. Marquardt, Marquardt, Blake & Decker; Alexander Calder, Union Bag and Paper Corporation; Sidney H. Sonn, Leopold Sonn & Bro., Inc.; B. Kaufman, Kupfer Bros. Co.; Frank I. Libbey, Gerbereaux, Dufft & Kinder; Nicholas J. Barrett, Thomas Barrett & Son; John Atkins, Perkins-Goodwin Company; Leon Pomerance, Forest Paper Co.; William H. Bliss, Borst-Forster Dixfield Company; Louis von Haselacher, Robert Gair & Co.; J. A. Kavanagh, American Paper and Pulp Association.

Current Statistical Data

The American Paper and Pulp Association, in its effort to promptly place statistics on the paper industry before its members is now issuing a preliminary release on the data which appears in detail in its Monthly Statistical Summary.

As the data in the association's Monthly Statistical Summary is based on the reports of identical mills comprising approximately 80 per cent of the productive capacity of the country, it is only natural that out of such a large number of reports a small percentage should be late, thereby delaying the publication of the final report.

In order to overcome this difficulty and to present an earlier report on operations, the Statistical Department of the association is compiling the reports received from identical mills by the 15th of the month and is publishing data on the rate of operation together with a comparison of the rate of daily average production of the current month as compared with the previous month and also the corresponding month of last year.

Since most of the reports are in by the 15th of the month, this preliminary report on the rate of operations gives the manufacturer a fairly good picture of operating conditions in the various grades of paper and pulp and enables him to make comparisons with his own operations one or two weeks before the complete statistical data is published.

The first of these preliminary reports was published in the November 21st edition of the American Paper and Pulp Association's Weekly Business Review.

Payne Whitney Estate Appraised

The largest estate ever appraised in this country, the appraisal being nearly twice that of the highest previous record, belonged to the late Payne Whitney, capitalist and sportsman. The appraisal was made public last week, the amount being announced as $194,328,514 gross, and $178,893,655 net.

Included in the holdings of stock possessed by Mr. Whitney are 160,032 shares of Great Northern Paper Company, appraised at $10,342,048. Mr. Whitney also owned half the shares of the Northern Finance Corporation, which was created by the late Col. Oliver H. Payne, as an incorporated trust fund. These holdings include 333,924 shares of the Great Northern Paper Company, appraised at $21,371,136.

Tileston & Hollingsworth Complete Storehouse

Construction was completed this week on a new storehouse for Tileston & Hollingsworth Company at Hyde Park, Mass. The new building is approximately 100 feet square, the lower stories of fireproof construction and the upper story of brick and timber. It is designed particularly to care for old paper stock delivered by truck, and includes beater equipment which will give the stock a preliminary breaking up before passing to the regular processes. One floor is directly connected with the beater room of the mill.

This building, which was constructed by the Morton C. Tuttle Company of Boston, is expected to materially improve the efficiency and economy of mill operation.

R. E. Barrett Honored

HOLYOKE, Mass., November 20, 1928.—Robert E. Barrett, president of the Holyoke Water Power Company, has been elected a director of the Associated Industries of Massachusetts, a considerable honor for the city.

If you stop to figure UTILIZATION COST

You will understand why the Leading Converters find it Most Economical to use the

UTILIZATION COST

is determined by comparing the initial cost of a roll to the actual number of operating hours of service or the yardage run secured from the roll.

Keeping such a record prevents excessive roll costs.

WALDRON Paper Rolls

Write for Your Copy of the INSTRUCTION SHEET On How A Paper Roll Should Be Run In

No loosely constructed roll, regardless of outside appearance or low price, can ever satisfy the keen buyer who figures utilization costs.

The majority of the leading embossers throughout the world, has proved over a period of more than 75 years, that Waldron Paper Rolls, by virtue of their superior construction and longer lasting quality, not only improve the embossing but substantially reduce the item of roll costs.

There are Waldron Rolls for Embossing Machines, Glassine Calenders, Coated Paper Calenders and for Heated Roll Embossing. Ask our engineers to make recommendation that will help reduce your roll costs.

JOHN WALDRON CORPORATION

MAIN OFFICE AND WORKS, NEW BRUNSWICK. N. J.

208 W. Washington St. CHICAGO

30 East 42nd Street NEW YORK

519 American Bank Bldg. PORTLAND, ORE.

New York Trade Jottings

C. E. Carpenter, of the Container Corporation of America, Chicago, was a visitor to the Technical Association office at 18 East 41st street, New York, last week.

* * *

The Perkins and Squier Company, general paper merchants, announce the removal of their office to the Pennsylvania Building, 225 West 34th street, New York.

* * *

Marquard H. Lund, United States Commercial attache to Norway, will sail for Europe this week to take charge of the new office of the Commerce Department which is located at Oslo, Norway.

* * *

Albert Artendahl, of Stockholm, Sweden, was a visitor to the TAPPI office at 18 East 41st street, New York, last week and showed the plans of his new chip distributing device for filling digesters. He is now in Montreal.

* * *

A luncheon was held on Tuesday, November 20, at the Up-Town Club in New York for the purpose of introducing William Lehtineu, commercial attache of the Consulate General of Finland. Those who attended included Ovar Hylin and Wm. Ramsay, of the Lagerloef Trading Company, Gustav Asplund, who is connected with the Swedish Consulate, O. M. Porter and R. G. Macdonald.

* * *

W. G. MacNaughton, of the News Print Service Bureau, addressed the New York Division of the Salesmen's Association of the Paper Industry at its regular luncheon on Monday, November 26. Mr. MacNaughton's subject was the progress made in the paper and pulp industry on the Pacific Coast. He described the changes in productive capacity from the year 1921 up to the present time and he also outlined briefly the possible future trend on the west coast.

* * *

Completing twenty years of industrial cleaning service, the technical staff, field service men and executives comprising the organization of Oakite Products, Inc., met in the general offices in New York, November 14 to November 17, on the occasion of their annual sales conference. District managers and representatives from thirty-three States and Canada came together in daily discussion, subjects of which ranged from the cleaning of watch crystals to ocean liners and silk stockings to eighty thousand barrel oil storage tanks. One of the interesting phases of the convention was the demonstration of paint stripping on the side of a full sized locomotive tender, the operation being performed by apparatus designed and built by the service department of Oakite Products, Inc. There were nineteen papers on technical, sales and service topics followed by brisk, informal discussion and an interchange of experiences. On Friday, November 16, W. H. Bruce, publisher of *School Board Journal,* and Frank O. Dunning, eastern manager, addressed the conference on the importance of cleanliness and sanitation in schools and institutions; W. E. Irish, associate editor of *American Machinist,* gave an address on cleaning operations in the machine tool and accessory field; P. W. Swain, managing editor of *Power,* spoke of the power plant field. W. Drew, eastern district manager of *Bus Transportation,* also spoke, stressing the importance of cleaning operations that are necessary in connection with servicing the more than 25,000 bus fleets in the United States. Among the papers given at this conference were: "Oakite Developments in the Wire Industry," "Operations with Oakite Materials in Printing, Lithographing and Electrotyping Plants," "Handling the Railroad's Cleaning Problems," "Daily Cleaning Operations for the Oil Industry," "The Aims of the Oakite Service Department," "Bringing Good-will with Oakite Compound."

C. M. Baker Addresses Miami Valley Paper Men

DAYTON, Ohio, November 26, 1928.—Keen interest was manifested in the joint meeting of the American Paper and Pulp Association, the Technical Association and the Miami Valley Superintendents' Association at the Manchester Hotel in Middletown, Thursday afternoon and evening.

The attendance was large and the generally-expressed opinion was that the session was worth while, particularly in the discussion of means to purify streams and dispose of waste from paper mills in the most approved manner.

The afternoon session was a sort of a round-table conference bearing on "Waste Utilization and Stream Purification," a subject that was discussed learnedly by C. M. Baker, engineer of the American Paper and Pulp Association. Mr. Baker covered the mills in the most approved manner.

Other speakers were H. A. Moss, William Waring, and F. E. Hatch of the Ohio State Department of Health; Linn H. Enslow, sanitary engineer of the Chlorine Institute of New York; F. B. Gilligan, of the Oxford-Miami Paper Company; and representatives of the Gardner-Harvey paper mills and of other concerns either directly or indirectly interested in the trade.

There was a series of five-minute talks by prominent men of the paper industry. Each had something of value to bring out in his brief address. Many points of importance to the practical mill man were covered in the few moments some of the representatives of the trade spoke.

The meeting was sponsored by the Miami Valley Paper Manufacturers' Association, which was represented by an almost 100 per cent attendance. Robert L. Eminger, national secretary-treasurer of the Superintendents' Association, had charge of the meeting and was largely responsible for the program which was presented. The evening program began with a dinner in the main dining room of the Manchester Hotel at 6:15 and was followed by addresses and discussions dealing with the following subjects: "Waste Utilization and Stream Improvement," by C. M. Baker; "The State's Program in Stream Improvement," by Messrs. Moss, Waring and Hatch, and "The Use of Chlorine in Utilization of Waste in Paper Mills," by Linn H. Enslow, New York.

Construction Commenced on Bag Plant at Mobile

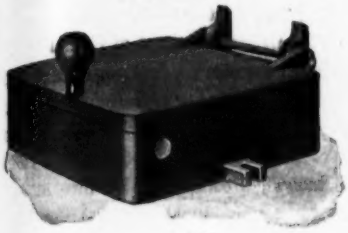
The International Paper Company has commenced construction of a paper bag plant at Mobile, Alabama, which will have an annual capacity of about twenty-eight thousand tons of grocery bags and printed specialties. The plant is being built by Continental Paper and Bag Corporation, a subsidiary of International Paper Company, in conjunction with the kraft paper mill which the International is erecting at Mobile, and will use a portion of the product of that mill in the manufacture of paper bags.

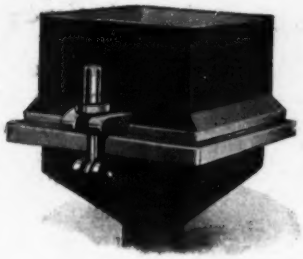
The Mobile plant is the eighth paper bag plant of the company, the others being at Rumford Falls, Maine; Brooklyn, New York; Wellsburg, West Virginia; Camden, Arkansas; Bastrop, Louisiana; Marinette, Wisconsin; and Ottawa, Ontario. The Camden plant—now nearing completion—and the Wellsburg plant are owned by the George & Sherrard Paper Company—another subsidiary of International Paper—and the other plants are owned and operated by Continental Paper and Bag Corporation.

Crystalite Water Softeners

Crystalite is the subject of an illustrated bulletin 183 issued by the International Filter Company, 333 West 25th Place, Chicago. This attractive sixteen page technical booklet discusses: the chemistry of zeolite water softening, the early history and development of zeolites, Crystalite the super rapid zeolite, the advantages of upflow softening illustrated with curves, the adaptability of Crystalite to upflow softening, International Crystalite water softener installations are shown, and important uses of Crystalite softened water are listed.

Valley Hot Plate for Drying Test Sheets

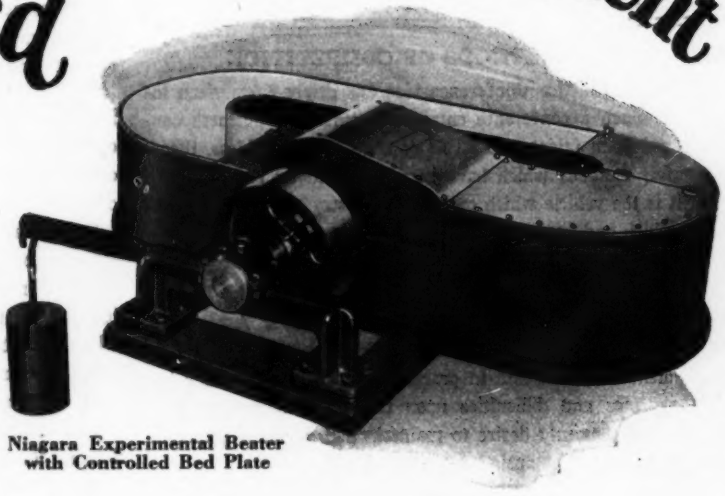




Valley Sheet Mould for Forming Test Sheets

Valley Hydraulic Press for Removing Water from Sheets

Valley Laboratory Equipment is preferred



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Let us send you a copy of our new booklet on Valley Laboratory Equipment. It contains tests in eleven mills in chart form that is of interest to every mill executive. Your copy will be sent upon request.

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UNFAIR METHODS OF COMPETITION

The Trade Practice Conference idea has gripped American industries. Such a conference entails a program of business conduct based upon fairness to all as opposed to the ruthless, illegal and unfair methods which have been employed by so many. In brief, it is the vehicle which carries to industry the elimination of abuses which had been promulgated by a few and which gradually forced others to accept such abuses or starve.

The majority of these abuses or unfair methods, Mr. Paul S. Hanway, manager of the American Waxed Paper Association, believes spring up in distribution. In the majority of cases their development is similar and in practically every instance they impose hardships and difficulties upon those distributors of commodities who honestly desire to maintain high business principles in the conduct of this business.

The dominating element in the initial use of these abusive methods is admittedly poor and weak salesmanship combined with a faltering executive policy.

The most abusive and most destructive of all generate from concessions,—concessions granted to a customer, a something for nothing policy, to obtain an order after salesmanship failed.

One manufacturer or distributor grants a concession upon freight charges or crating charges, or prints an overabundance of free samples in order that he may beat the price of his competitors.

No sooner has one started the concession mania than all of his competitors must of necessity either meet such competition by granting a similar concession or by offering some other concession which in turn starts another cycle equally as bad and two new abuses have developed. And so the chain continues until an industry begins to flounder in the maze of profitless prosperity. There are, of course, many other types of abuses, but it is the principle rather than types with which all industry is concerned.

Various groups of manufacturers or distributors have endeavored in the past to solve this problem through the acceptance by the trade association or group, of a code of ethics which supposedly provided for fair methods by all so concerned. But it is a question whether or not there has been one case in which the code of ethics was really maintained and became permanently effective.

Trade associations in some cases have come nearest to approaching a solution, but here again the trade association has no control over those who are not its members and at times has little control over its own recalcitrant members. And so, until the advent of the Trade Practice Conference, it was found that each industry had as many different standards of business conduct as there were manufacturers or distributors in the particular classification of business. Each individual established his own methods generally regardless of the ultimate effects so long as the orders came in. The idea of profits was scrapped in favor of a mania for full operation and production. Highly expensive and intricate machinery is being worn out in order to produce goods at or below cost.

Consolidations became popular because the stress of unfair competition could be met better through the increased efficiencies due to the large operating units under a single head. But still the situation was not sufficiently bettered to provide for future protection against unfair methods because consolidation began to compete against consolidation and the abuses again achieved popularity.

That many of the abuses in question are admittedly acts entirely illegal seemed to make little difference, because no one company could afford the expense or the reputation entailed in the prosecution of all such illegal activities which affected its business. It oftentimes seemed simpler to meet abuse with abuse.

Such conditions in practically all types of business grew constantly worse and seemed hopeless of solution until the Federal Trade Commission inaugurated the Trade Practice Conference based upon that section of the Federal Trade Commission act which permits the Commission to affirm illegality of unfair methods by stating in effect that unfair methods of competition in interstate commerce are illegal.

Here was a possible real solution to this great problem and the Federal Trade Commission, in its methods, has made the solution an open book to each industry or classification of business which sincerely desires the elimination of unfair methods.

The Trade Practice Conference is a conference of voluntary action by a group in cooperation and with the aid of the Commission. The conference is called by the manufacturers through a request to the Commission after a preliminary review of conditions shows that such a conference will hold water and that abuses and unfair methods actually exist.

The industry gathers its own data and plans its presentation of this data. It makes its own requests and establishes its own resolutions, and these only are considered.

Each unit or manufacturer in a group is entitled to offer suggestions toward the improvement of business conditions in his industry, and each one is requested to agree to abide by the rules of business conduct which the brains and experience of the majority determine to offer fairest competition to all.

Right here we see the total elimination of the previously mentioned variety of standards of conduct, one for each company. Industry becomes, through these conferences, a type of integrated unit in so far as standards of business conduct are concerned.

The "lone wolf" was brought into the fold and he as well as all others found it advisable to accept and conform to fair methods,—

something which under all former methods or attempts had never been accomplished.

The conference offers to an industry an opportunity to place itself upon a basis which gives quality, service and honest salesmanship a fair chance. It prohibits methods which are unfair to the public or to the other members of the industry. It can provide for standardization—the basis for uniform cost accounting and for the protection of the consumer and makes possible the elimination of waste by the standardization and simplification of commodity types in cooperation with the Department of Commerce.

These conferences are not governmental interference but rather the cooperation of the government in the development of standards for sizes, quality, etc., standards for fair competition, and last but not least, a legal guardian with power to assume authority and use it in protecting industry wherein it has not heretofore been able to protect itself against unfairness and illegal practices by groups or individuals.

Paper and Pulp Convention Plans

The 52nd annual convention of the American Paper and Pulp Association will be held at the Waldorf-Astoria Hotel, in New York City, February 18-21, inclusive, 1929. The annual business meeting of the association will be unusually interesting, with addresses by President Everest, Commissioner Humphreys, of the Federal Trade Commission, and Dr. C. H. Herty, of the Chemical Foundation. It is also expected that action will be taken at this meeting on the recommendations of the association's committee on development, covering more effective organized service to the industry.

The New York hotels are usually pretty well filled in February so it is suggested that reservations be made as early and as definitely as possible. The association has solicited the cooperation of the hotels in order to eliminate as far as possible the reservation annoyances of past years. The usual reduced railroad rates will be available to members of the association, the National Paper Trade Association, and their affiliated organizations. Banquet reservation blanks and additional data regarding the convention will be sent to members of the association early in January.

With every reasonable prospect for good business and with the various branches of the industry becoming better organized, the convention next February gives promise of being a very worth while gathering of all the paper interests from all over the country.

Bids and Awards for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 28, 1928—The Government Printing Office will receive bids on November 30 for 4,800 sheets (2,000 pounds) of 26 x 38 inches 50 lbs., news board.

The Printing Office has announced the following paper awards.

To the Whitaker Paper Company, 855 pounds (1,850 sheets) of No. 1 white rope drumhead manila paper, 34 x 50" at 17.9 cents per pound. To the Mathers-Lamm Paper Company 1,600 pounds of 24 x 36" red rope paper at 10.7 cents per pound. Bids for these items were received on November 7.

To Reese & Reese 40,000 pounds of wood manila tag board in 22" rolls at 4.125 cents per pound. To Barton Duer & Koch Paper Company. 5,000 sheets of 22 x 28" red railroad board at $32.40 per M sheets. To Walker, Goulard, Plehn Company, 3,000 pounds of 24 x 36" manila offset tissue paper at 10.5 cents per pound. Bids for all of these items were received on November 5.

To the Atlantic Paper Company 44,000 pounds of calendered tag board in 23½" rolls at $3,546.40, bids for which were received on October. 26.

Aetna Paper Mill Improvements

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, November 26, 1928.—An improvement of importance to the paper trade in this city has just been started at the Aetna Paper Company's plant at Cincinnati and Columbia streets, through which that company will have a considerably enlarged output of high-grade rag papers. The company is erecting a modern two-story brick and concrete structure adjoining its present large plant and will rebuild its Fourdrinier machine. This work will require some time and when completed will completely modernize the equipment, giving the machine a fairly high speed. It is expected the manufacturing production will be greatly increased and accelerated by reason of the improvements. The Aetna company obtained a building permit the past week for the construction of the mill addition, the cost having been given as $22,500. The I. F. Weber Company was named as the contractor.

The Aetna Paper Company is headed by Colonel Maxwell Howard, of the Howard mills in Urbana, Ohio, and the Maxwell mills in Franklin, formerly the Harding mill, the first plant to be located west of the Alleghenies. Various changes have been made at all of Colonel Howard's mills in recent years. The Harding mill was entirely rebuilt and modernized and the Urbana plant is also the "last word" in mill construction. The Aetna mills were founded many years ago by the late W. W. White, who conducted them until he encountered difficulties. Later the property was acquired by Cincinnati interests and Colonel Howard and associates, including his brothers, who are actively engaged with him in his paper industries, concededly some of the most important in Ohio.

Big Power Merger Nearing Completion

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., November 24, 1928.—Negotiations are reported nearing completion for the merger of practically the entire resources of Pennsylvania and Northern New York, which will affect paper mills in this section to some extent. Among the concerns involved in the combine are the St. Regis Paper Company, Northeastern Power Corporation, United Gas Improvement Company, Mohawk-Hudson Power Corporation, Rochester Central Power Company, and the Buffalo and Niagara and Eastern Corporation, which utilize the energy of Niagara Falls. The consolidation will bring together properties worth more than a billion dollars and the largest factor will be the United Gas Improvement Corporation.

Merger plans provide for Niagara Falls to supply the entire system from midnight to dawn while all will combine to carry the peak load during the day time. The consolidation is expected to result in a reduction in power rates for the paper and allied industries in this section.

St. Regis May Absorb Cellulosa Cubana

In financial circles it is reported that the St. Regis Paper Company is negotiating for the absorption of the Cellulosa Cubana of Cuba. Present plans call for the enlargement of the present paper mill on the island and the erection of another plant in the neighborhood of Havana.

The Cuban company is one of the newest in the field and is utilizing the waste product in the grinding of sugar cane. The method of making high-grade newspaper stock was invented by De la Rosa, who is at present associated with it in the capacity of chemist and will remain identified as an officer.

In the trade the restrictions on Canadian wood pulp exports has lent further impetus to the new process of preparing paper from sugar cane. Several months ago it was the plan of a few financial men identified with paper mills to enlarge the industry in Cuba, so that the full waste product of grinding centrals might be utilized.

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AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Edited by
RONALD G. MACDONALD, Secretary

An Improved V-Notch Weir Recorder

If the flow over a weir increased proportionately to the head, the recording pen, pointer and integrator devices could be attached directly to the float rod, giving the simplest possible kind of recorder. In fact, weirs having this property of flow proportional to head have been devised, but they are not satisfactory as weirs. The V-notch weir is unquestionably the best as regards flow properties, particularly where there are wide variations in the rate of flow, since it is accurate at small fractional flows as well as at full flow. Its properties have been exhaustively investigated and it is easily and inexpensively reproduced to correct and standard dimensions.

In order to record the flow over a V-notch on a chart having uniform graduations, however, it is necessary to use some form of rectifying mechanism.

At first thought it might seem a simple matter to attach a cam directly to the float stem so that it would push the pen sidewise the correct distance as the float rose. Due to the fact, however, that the flow over a V-notch increases as the 5/2 power of the head, it will be seen that such a cam would become very steep at the high flow end and there would be a tendency for it to bind. In former recorders this difficulty was overcome by various expedients, as by winding the cam in a long helix around a cylinder and multiplying the motion by means of a rack and pinion, or by laying the cam out in a spiral on a large disk and multiplying the motion by means of a cable and drum.

In the new Cochrane V-notch Recorder, shown herewith, a remarkably simple and effective solution has been found. The cam is hung from pivot bearings and oscillates in a vertical plane, while a roller carried by the float stem and moving up and down in a straight line bears against the edge of the cam, approaching the axis or center of oscillation of the latter at the higher flows. With this disposition of the parts, it is easy to get the required transformation of motion with a cam of comparatively simple form, for as the roller approaches the center of oscillation its effect in moving the cam angularly is increased, just what is required to accommodate the 5/2 power law. A slight biasing weight on the cam keeps the latter always in contact with the roller.

The pen arm is attached directly to the cam spindle; while the visible pointer is mounted on a separate spindle connected to the cam by a link motion. The operation of the integrator is controlled by motion received through a pair of toothed sectors. The positive, direct drive from the float to the recorder pen eliminates the slack or back-lash found in rack and pinion or cable transmissions and rapid up and down movements of the float cannot put the instrument out of order.

The integrator is of the clock-driven type and imposes no restraint upon the flow measuring parts. The gear train consists of spur gears, each pair having a ratio of 10 to 1. There is only one tooth on the pinion and ten teeth on the gear. This one tooth engages for only a part of a revolution, the gear being held stationary during the remainder of the pinion revolution, as the remainder of the pinion has no teeth, but is circular and bears between two adjacent teeth of the gear. The result is that two adjacent teeth of the gear, except the first or highest-speed gear,

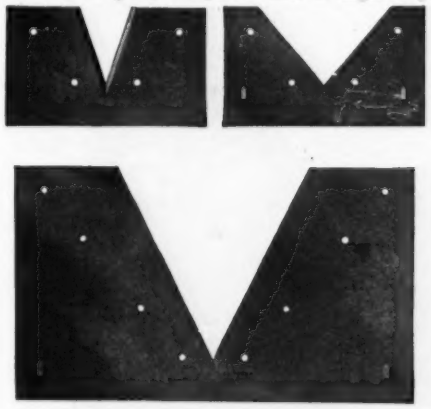

FIG. 1

Cochrane V-Notch Weirs. The two halves of a weir are machined as separate parts and then brazed together while held in a jig. The edge or lip is absolutely straight and uniform. The gauge points for leveling and for adjusting the water level to zero are located at the same time. Where corrosive liquids are to be metered, notch plates of suitable materials are supplied.

advances always a whole number at a time. Except for the first dial, there is, in other words, no gradual, continuous movement of the figures, as would be the case were an ordinary gear train used.

Now, the first, or highest-speed, gear is advanced by varying small increments which are proportional to the momentary rate of flow. To secure this result, a rod attached to a crank rotated by the clock operates a clutch which engages with the milled edge of a disk mounted on the spindle of the first counter train pinion. Each stroke of the clock pulls the clutch back to the starting point, where it engages with the milled disk, and then pushes it forward until the clutch is thrown out of engagement by a cam. The position of this cam is determined by the position of the main cam, and therefore by the rate of flow, the transmission of motion from one cam to the other being made by a pair of toothed sectors. It will

be seen that the counting train is thus advanced for each interval of time by an amount proportional to the instantaneous rate of flow and that the result for a longer period of time is totalized or integrated flow.

Only one clock is required and this may be either of a powerful double-spring type or an electric clock may be used where alternating current of controlled frequency is available.

Discharge Coefficient for V-Notch Weirs

The triangular or V-notch weir has the advantage that the head to be measured at small flows is relatively large and that the cross-section of discharge for any given angle at the apex is similar at all heads. For the theoretical equation

$$q = ch^{5/2}$$

James Thompson, who experimented upon V-notch weirs at Belfast in 1858, chose a mean value of c of .305 for a right-angle notch, q being measured in cu. ft. per minute, and h in inches. James Barr, who made several hundred experiments, gave the following values for the discharge through a 90 degree narrow-edge, smooth brass notch with a practically unlimited approach channel.

BARR'S RESULTS FOR THE FLOW OF WATER THROUGH A 90-DEGREE V-NOTCH WITH UNLIMITED APPROACH

Head in inches	Value of coefficient C	Flow in cubic feet per minute	Flow in gallons (Imperial)
2	0.3104	1.755	10.94
2½	0.3084	3.045	18.97
3	0.3068	4.782	29.79
3½	0.3057	7.002	43.63
4	0.3047	9.750	60.74
4½	0.3038	13.05	81.29
5	0.3032	16.95	105.6
5½	0.3026	21.46	133.7
6	0.3021	26.63	166.0
6½	0.3017	32.49	202.4
7	0.3013	39.05	243.0
7½	0.3009	46.34	288.7
8	0.3006	54.06	338.9
8½	0.3003	62.92	392.0
9	0.3000	72.90	454.2
9½	0.2998	83.33	519.2
10	0.2995	94.70	590.0

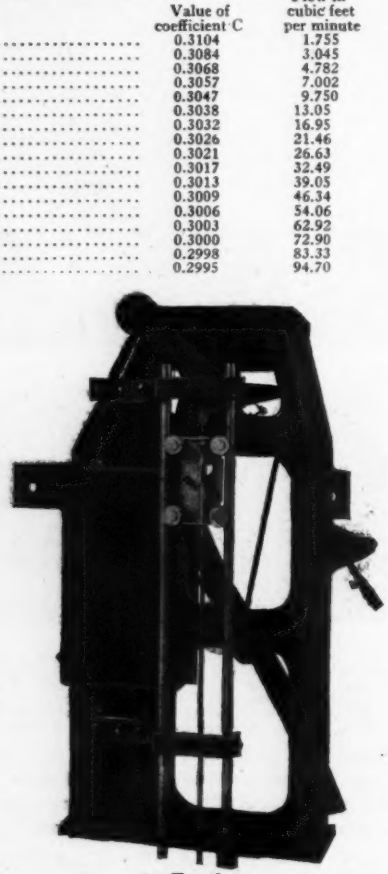

FIG. 2

Recorder mechanism from rear, with float rod in place.

The above results, which Barr believes to give the true discharge within 1/3 of 1 per cent, are well represented by the formula

$$q = .31358\ H^{2.48}$$

Tests on a notch cut in a steel plate beveled to ⅛ inch, made under the direction of H. W. King, gave the following:

These values are about 2 per cent higher than Barr's, which King explains as being due to the roughness of the steel notch plate. They can be represented quite accurately by the formula

$$q = 2.52\ H^{2.47}$$

in which Q is in cubic feet per second and H in feet.

The flume was 8.05 feet wide and about 5 feet deep, and the apex of the weir was 2.0 feet above the bottom of the tank. The head was measured with a hook gauge in a pail attached by a hose

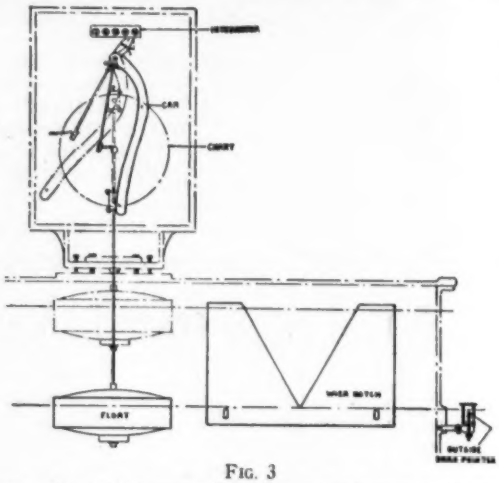

FIG. 3

By means of an outside zero pointer level with the apex of the notch, it is possible to adjust the V-notch recorded to zero at any time, even when the apparatus is filled with hot water and steam.

to the side of the flume about 6 feet upstream from the weir. The discharge was weighed.

Doebler and Rayfield, who made tests on a 28 degree 4-foot notch with heads up to 3 feet, report the formula

$$Q = 0.6405\ H^{2.468}$$

V. M. Cone, who experimented on a 120 degree notch with heads up to 1.35 feet, obtained $Q = 4.40\ H^{2.487}$, while with a 60 degree notch he obtained $Q = 1.446\ H^{2.470}$.

To obtain the coefficient for a notch of a different angle, modify the coefficient which has been determined by experiment for a notch of nearly the same angle in the ratio of the tangents of the halves of the respective angles.

In order that the flow may be independent of the channel width, the latter, as shown by Barr, should be at least eight times the head on a 90 degree notch, while the depth of the channel below the apex should be about three times the head with a 3-inch head, and four times the head with a 4-inch head.

Ohio Paper Manufacturers Optimistic

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, November 26, 1928.—A number of Dayton and Miami Valley paper manufacturers and mill men attended the annual convention of the Ohio Manufacturers' Association at Cleveland last week.

It was reported at this session that increased prosperity in the next few years was the outlook. L. B. Webster of Columbus, secretary of the association, said "manufacturing business in Ohio is better now than it has been at any time during the last four or five years."

Similar opinions were expressed by others, including Frank S. Sisson, New York banker, who discussed conditions during the past year and spoke of the encouraging outlook for the future.

Dr. Bentzen Approved Mill Pulp Testing Chemist

Dr. Theo. C. Bentzen, of the Whiting-Plover Paper Company, Stevens Point, Wis., has been accepted by the Joint Committee on Approved Pulp Testing Chemists for the Paper Industry of the United States, as an approved Mill Pulp Testing Chemist, and is listed as such, effective November 10, 1928.

Bleaching of Wood Pulp

VI—The Effect of Bleach Ratio on the Color, Reaction Rate, and Chemical Composition in Bleaching Sulphite Pulp*

By P. K. Baird [1]

Further studies on the effect of the bleach ratio on the color, reaction rate, and chemical composition of sulphite pulps have been completed at the U. S. Forest Products Laboratory and are now presented.

In general, it was known that the higher the bleach ratio the whiter would be the final color of the pulp, within the limits of bleachability. However, little was known about the effect of bleach ratio on the relation between bleach consumption and color changes throughout the reaction. The study of the factors entering into this relation is somewhat complicated by the practice of employing two different bleaching methods. One method uses an amount of bleach just sufficient to give the desired color at complete exhaustion of the chemical, whereas the other employs a higher ratio of chemical to pulp and the bleaching action is stopped at the desired color, either by washing out the excess of chemical or by adding an antichlor. The two processes are known respectively, as the "complete-exhaustion" and the "excess-chemical" method. The excess-chemical method is selected either to shorten the bleaching time or to attain a higher white than that which is the true bleachability color as determined by the wood and the cooking conditions.

The effect of a higher bleach ratio on the rate of bleaching was known only in a general way, and its effect on the chemical composition of the pulps under the various conditions was known, except that an excessive amount of bleach would produce oxycellulose and consequently would impair the strength of the fiber.

Approximately the same commercial results are apparently obtained by both methods, although of course different bleach ratios are required. These two facts imply that different efficiencies of bleach utilization obtain in the manufacture of products that commercially are essentially the same, especially in those products that are identical in color.

To learn the various relations just discussed, a series of bleaches at constant temperature, using four different bleach ratios at two different consistences, was conducted. In these bleaches the rate of reaction was measured by frequent analyses for consumed bleach and associated color. The colors and chemical properties of the bleached pulps at the time of bleach exhaustion were determined.

Apparatus

The same apparatus that has served in previously reported studies [2] was used. It has a limitation of 7.0 per cent consistance, imposed by conditions of agitation.

Materials

Samples from the same, easy-bleaching, spruce sulphite pulp studies [2] was used. It has a limitation of 7.0 per cent consistence, prepared for the experiment by disintegration in a Williams shredder. The bleachability of the pulp, as determined by method 49,[3] was 17.0 per cent. The bleach liquor was prepared from commercial powder as described in a previous paper.[3]

Experimental Conditions

The experiments were performed under the following conditions: a rate of rotation of the apparatus of 5.66 r.p.m., a temperature of 35 degrees C., consistences of 3.0 per cent and 7 per cent, and bleach ratios of 12.3, 15.0, 17.0, and 30 per cent.

TABLE 1
COMPOSITION OF BLEACH LIQUOR

Analysis No.	Date [1]	Total chlorine Grams per liter	Available chlorine Grams per liter	Chlorates Grams per liter	Alkalinity $Ca(OH)_2$ Grams per liter	Relative alkalinity
1	Aug. 12	73.2	55.2	0.90	1.42	0.026
2	Aug. 24	...	54.3	...	...	....
3	Sept. 3	...	53.9	...	...	....
4	Sept. 28	...	51.5	...	...	....
5	Oct. 22	...	49.8	...	...	....
6	Nov. 2	...	49.6	...	...	....
7	Dec. 5	...	48.7	...	...	....
8	Feb. 4	72.2	46.0	11.7	1.35	0.029
9 [2]	Oct. 5	62.8	44.3	2.2	1.47	0.033

The composition of the bleach liquors for the various experiments is given in Table 1.

Procedure

The bleaching was performed in the same general way that has previously been used.[2]

Discussion of Results

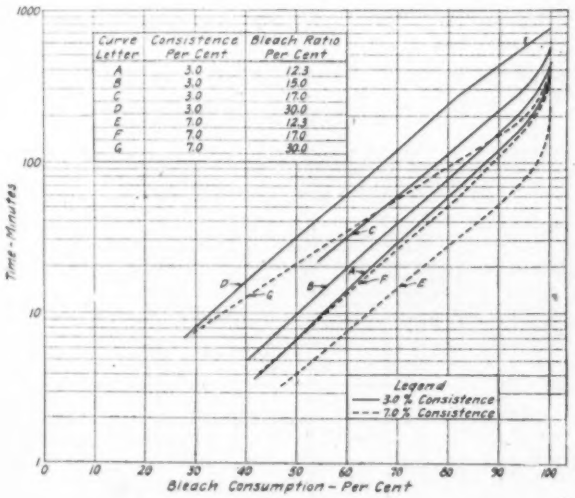

FIG. 1
The Rate of Bleach Consumption.

In Fig. 1 are shown the relations of elapsed time to percentage of chemical consumed for the various consistences and chemical ratios used in this study. The data, which are in accord with previous studies on the rate of reaction as affected by temperature [4] and consistence,[5] will be of interest in the consideration, later, of the problem of "time versus chemical," since the selection of the time to be allowed for a bleach affects the economical control of the bleaching process.

In Table 2 are given the data for the series of bleaches made in this study.

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* Presented at Fall Meeting of TAPPI, Wausau, Wis., Sept. 25-27, 1928.

[1] Member TAPPI; Senior Chemist in Forest Products, U. S. Forest Products Laboratory, Madison, Wis.

[2] C. E. Curran and P. K. Baird. Bleaching of Wood Pulp. 1.—Factors affecting the process and their control. Paper Trade J. 79, No. 1, 56-58 (July 3, 1924).

[3] Pulp and Paper Manual of Testing Methods for Pulpwood, Pulp, Stuff, and Paper. 1st ed. 1928. Forest Products Laboratory.

[1] Consecutive calendar months.

[2] New bleach liquor.

[4] C. E. Curran and P. K. Baird. Bleaching in Wood Pulp. III.—The effect of temperature in the bleaching of sulphite pulp. Paper Trade J. 79, No. 11, 45-47 (Sept. 11, 1924).

[5] C. E. Curran and P. K. Baird. Bleaching of Wood Pulp. IV.—Effect of consistence in bleaching of sulphite pulp. Tech. Assn. Papers 8, 1925.

TABLE 2.—BLEACHING DATA[1]

Reaction variables							Pulp quality								
							Final color by Ives tint photometer			Chemical properties					
												Cellulose content			
Bleach No.	Consistence	Bleach ratio	Chemical concentration[2]	Bleach liquor analysis	Time to exhaustion	Reaction curves in Figs. 1 and 2	Red Parts	Green Parts	Blue Parts	Copper number	1 per cent NaOH solubility	Alpha	Beta	Gamma	Total	Ash
	% Unbleached	% pulp	Grams per liter	No.	Min.						%	%	%	%	%	%
							77.5	68.0	62.0	2.7	9.9[3]	88.3	4.1	7.6	100.0	0.23
104	3.0	12.3	3.82	3	360	A	85	85	80							
105	3.0	12.3	3.82	3	350	A	85	85	80	3.1	9.7	86.0	5.7	9.8	101.5	0.26
120	3.0	12.3	3.82	7	385	A	85	86	81							
106	3.0	15.0	4.64	3	450	B	86	87	82							
107	3.0	15.0	4.64	3	435	B	85	86	82	2.6	11.4	85.2	8.8	8.1	102.1	0.20
111	3.0	15.0	4.64	4	495	B	83	84	81							
108	3.0	17.0	5.26	4	540	C	86	87	83	3.0	11.5	84.4	9.4	8.0	101.8	0.29
109	3.0	17.0	5.26	4	540	C	86	88	83							
124	3.0	30.0	9.28	9	765	D	83	88	89	5.3	16.0	72.5	14.6	13.1	100.2	0.40
118	7.0	12.3	9.28	6	230	E	85	87	81	3.1	11.7	87.8	...	...	....	0.38
119	7.0	12.3	9.28	6	235	E	85	87	82							
122	7.0	17.0	12.80	7	375	F	88	90	88	3.1	11.0	83.9	10.1	7.5	101.5	0.34
123	7.0	30.0	22.60	9	390	G	86	91	90	6.8	16.7	62.9	24.6	12.8	100.3	0.39

[1] R.P.M. constant throughout at 5.66. Pulp constant for all bleaches.
[2] Chemical concentration is fixed by fixing consistence and bleach ratio.
[3] Corrected for hot water solubility.

Bleach Ratio and Color

The first relation of interest in the bleaching reaction is that between amount of chemical and color.

Reference is made to the report on our previous study of the effect of consistence as influenced by the bleach ratio,[4] in which the interrelation of factors was shown. It was there pointed out that consistence, chemical concentration, and bleach ratio can not be changed singly; they can be changed only in pairs. In the present study the effect of varying the bleach ratio at any one consistence is of prime interest. A change of bleach ratio can be made without a change of consistence, but such change affects the initial concentration of chemical, and variation in this concentration no doubt influences the bleaching to a certain extent. In order to cover properly the low-density range of bleaching, the study was made at two consistences. Graphs that show the relation between consumption of chemical and color of pulp (expressed in Ives white), constructed mainly from the data in Table 2, are presented in Fig. 2; these graphs indicate that the change in color is approximately proportional to the bleach consumed until bleachability (a bleach ratio of 17 per cent) is reached.[5] The use of bleach ratios above the point of bleachability results in some gain in final whiteness, but it is not at all in proportion to that produced up to the true bleachability point of the pulp.

It appears that the higher the bleach ratio the greater will be the attack on the cellulose and the higher the resulting loss in the bleaching efficiency of the chemical. These facts develop from Fig. 2 when comparison is made between the curves of different bleach ratios at constant consistences. In general, the higher bleach-ratio curves fall under the others, indicating that less color

[4] Bleaching of Wood Pulp. V.—The effect of consistence as influenced by the bleach ratio. By C. E. Curran and P. K. Baird. Paper Trade J. 84, No. 15, 45-47 (April 14, 1927).

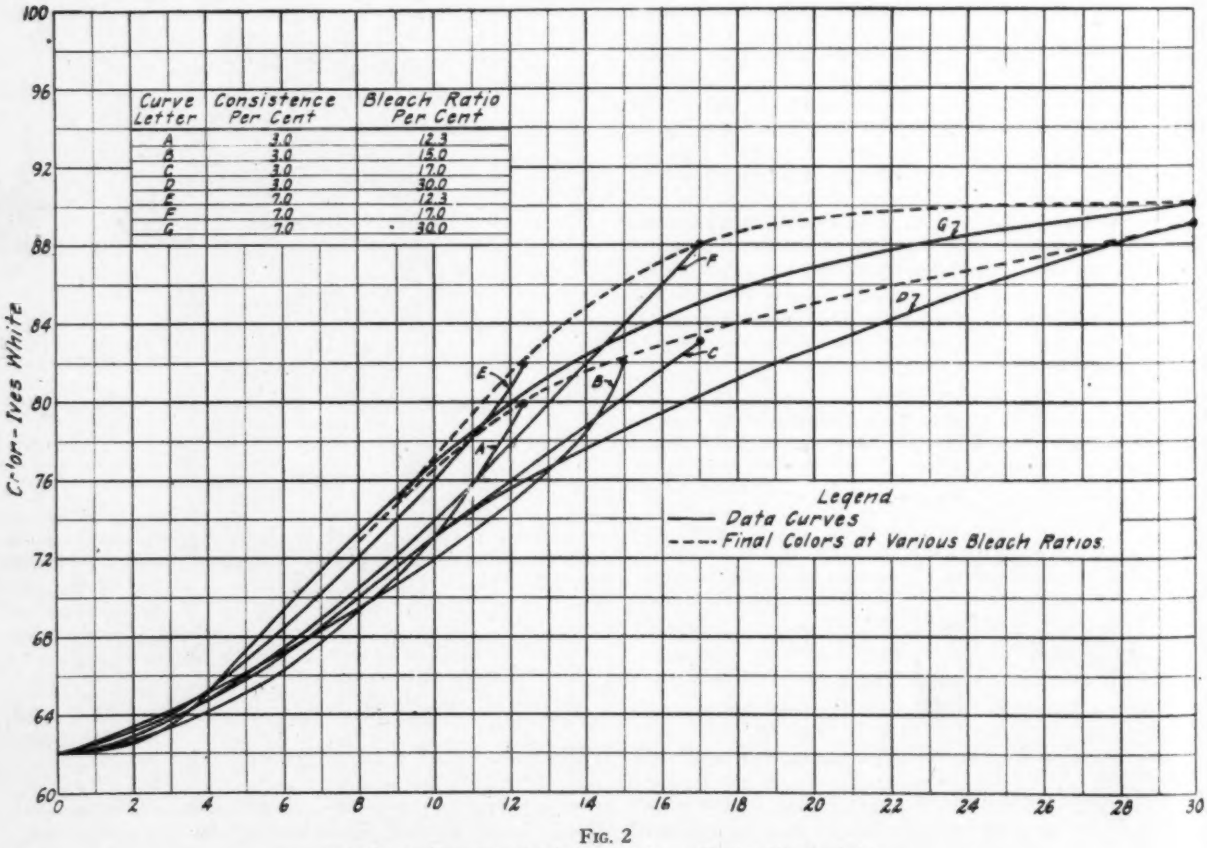

FIG. 2

The Relation Between Chemical and Color at Various Bleach Ratios.

is destroyed per unit of chemical. If curves are drawn through the points of final whiteness for the various bleach ratios at each consistence (the broken lines in Fig. 2), it becomes evident that the "consistence effect" [1] on color is greatest approximately at the point of bleachability; this effect is proportional to the vertical distance between the envelope curves. Furthermore, if these curves are extrapolated back towards the origin, a point is obtained, between bleach ratios of 8 and 10 per cent, where the "consistence effect" disappears. Advantage is taken of the determination of this point of disappearance in extending the curves in Fig. 3.

There are three stages in the relation between chemical consumption and color change during the bleaching reaction. The

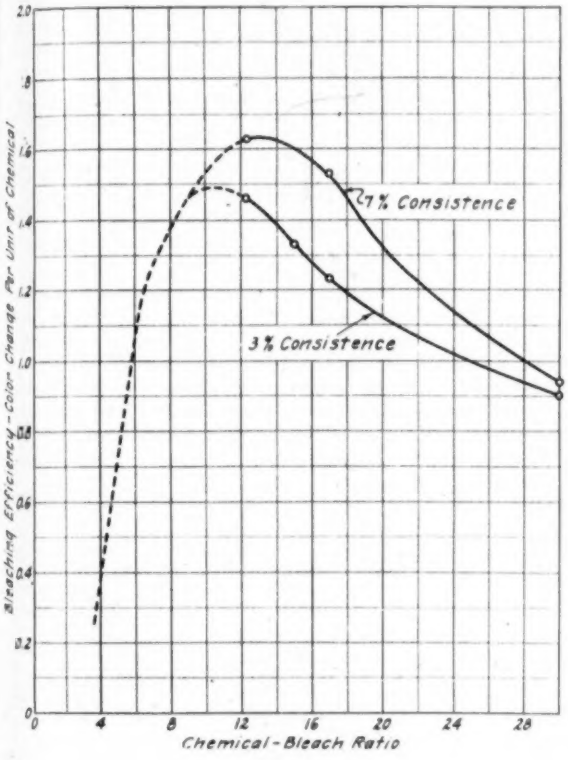

FIG. 3
The Bleaching Efficiency at Various Ratios.

first stage consists of the consumption of a small amount of chemical with little or no color destruction. The lack of color change may be due to the presence of a group of uncolored, bleach-consuming compounds. During this stage there occasionally is an indicator effect of dyestuffs caused by the alkalinity of the bleach liquors, which may mask any normal color change. In fact, a darkening appears occasionally in bleaching alkaline cooked pulps.

The next stage of the reaction is the one of true bleaching. In this stage the lignin, the natural dyestuffs, and other noncellulosic constituents of the pulp are removed without great attack on the cellulose. Referring to Fig. 2 and to the portion of the curves between colors of approximately 68 and 82, the color in this part of the reaction shows a rate of change with chemical consumption such that an average of about 1.5 per cent of white is produced for each per cent of bleach consumed, up to the point of bleachability. After this point there is obviously a drop in the bleaching efficiency of the chemical, as shown by the change in slope of the curves.

In the third and last part of the reaction, principally the cellulosic constituents of the fiber are attacked by the chemicals. This attack, which occurs to some extent before the point of true bleachability has been reached, continues to the point of exhaustion of the chemical. This part of the bleaching reaction should not be allowed to obtain to any great extent. To some small extent perhaps the three phases of bleaching occur simultaneously.

In Fig. 3 a direct comparison is made between chemical ratios used in the various bleaches and the resultant color changes. This relation, which is expressed as the parts of white produced (color removed) for each per cent of chemical used, in a general way determines the over-all efficiency of the bleaching. The broken lines extrapolated from the lowest bleach ratios used were obtained from the extrapolated part of the final-color curves in Fig. 2. They assist in completing the curves, representing the relation existing at lower ratios. It will be seen that there is a continuous change in the amount of color removed per unit of chemical for each ratio of bleach. Using this particular pulp, the parts of white produced to the unit of bleach are at maximum in the 3 and 7 per cent consistences at bleach ratios of 11 and 12 per cent, respectively. Consequently, at about these ratios the white is most efficiently attained and the cellulose should show least degradation. When a higher ratio is used the excess chemical is partly consumed in the attack of the cellulose that has previously been designated as the third part of the bleaching reaction.

BLEACH RATIO AND "CONSISTENCE EFFECT."[1]—Above 8 per cent bleach ratio the efficiency of bleach utilization is definitely higher for 7 per cent than for 3 per cent consistence. This fact confirms our previous work [4] and more definitely fixes the beginning of the consistence effect on color for the particular set of conditions obtaining in the experimental work. In our previous study a color difference of 2 per cent white between the 3 and the 7 per cent consistences (Fig. 2, A and E of the present report), which occurred when using 12.3 per cent bleach ratio, was considered within the experimental error, but this difference can now be definitely attributed to the beginning of the "consistence effect" on color.

The unusual phenomenon just mentioned has been given considerable study in the building of a theory of the mechanism of the bleaching reaction, which among other things will correlate the "consistence effect" with the other facts found in the past studies. This theory will be given in a subsequent paper.

Bleach ratio and chemical concentration.—Another factor closely related to bleach ratio and its effect on color is that of concentration of chemical. This fact was presented in a previous study,[4] where the relationship of the various factors in bleaching was exprssed diagrammatically. During the study of the effect of consistence on the color,[5] it had been our expectation to show that the "consistence effect" on color was due solely to the pulp-water relationship. The fact proved to be otherwise. Then it was thought that possibly the higher reaction rate caused by mass action in high consistence bleacning might explain the effect. Such a rate could not be the sole explanation, however, since the use of higher temperatures, by increasing the reaction rate, would then give a higher final color, and it had already been shown that this was not so.[4]

The preceding observations are confirmed in this study, in which the effects of various initial concentrations of chemical appear. Table 2 shows that the concentration of chemical alone can not be the cause of the "consistence effect," since the initial chemical concentration in bleaches 118, and 119, of Table 2 was 9.28 grams of standard powder per liter, whereas bleaches 108 and 109 had only about half that concentration, namely, 5.26 grams per cent. The first set of conditions gave a final color of 81 parts white, and the second gave 83 parts, merely 2 parts more. The first used a consistence of 7 per cent and a bleach ratio of 12.3 per cent, whereas the second was 3 per cent consistence and 17 per cent bleach ratio. The conclusion to be drawn from these results, consequently, is that the main effect of chemical concentration on color is the one associated with the pulp-water relation; probably

[1] "Consistence effect" is the term accepted in the industry, describing the increased whiteness and brightness obtained by the use of higher consistences with the same bleach ratio.

the two jointly cause the "consistence effect" as it has been observed in practice.

BLEACH RATIO AND REACTION RATE.—The second relation of interest in this study is the effect of bleach ratio on reaction rate. Figs. 4, 5, and 6 utilize the triangular or equilateral graph in which any given point expresses the proportions of the raw materials present at the beginning of the reaction. A point in the graph therefore identifies all the three dependent variables of consistence, concentration, and ratio, mentioned in a previous paper. Any given effect, for example, such as reaction time to completion (Fig. 4), final whiteness (Fig. 5), or alpha-cellulose in the bleached pulp (Fig. 6), may be charted by assigning to each point the numerical value of the effect under consideration. Lines representing equal values of the particular effect may then be superimposed upon the coordinates of the chart. By this means a nearly complete picture of the numerical value of the effect may be obtained over a large range of conditions, using a relatively small number of experiments. In addition the results possible of attainment may be ascertained when some definite condition is imposed by mill limitations. For example, if the capacity of the bleaching plant requires that 240 minutes for any batch be not exceeded, it is immediately obvious that the water-chemical-pulp relationship of Fig. 4 cannot extend to the right of the first line of equal time, which is the 250-minute line, other mill variables being the same as those of the experimental data. Any relationship within the range of these experiments, from water 97.0, chemical 0.2, and pulp 2.8 to water 92.0, chemical 1.0, and pulp 7.0, may be used, other variables being of the values shown.

ECONOMICAL CONTROL OF BLEACHING.—The time considerations of bleaching lead to a comparison for practical purposes of the "excess-chemical" method with the "complete-exhaustion" method of bleaching. Such comparison appears in Table 3. As shown in Fig. 2, it is not possible to attain so high an efficiency of color removal per unit of chemical when using an excess of bleach as when bleaching to exhaustion; there is with the excess, however, a very decided shortening of the time required to reach the desired color. Often, no doubt, the slightly increased cost of bleaching caused by the use of excess chemical is more than compensated for by the saving in time. In Table 3 are given several comparisons covering various bleach ratios. For instance, if a pulp were being made which bleached at 12.3 per cent bleach ratio and it was desired to save time by using an excess of chemical, comparison A in Table 3 would represent the case. The color of 80 per cent white, which is the final color at 12.3 per cent, is attained in bleaches 106 and 107 with the consumption of 14.5 per cent chemical, as shown in Fig. 2, A. The time required to reach 14.5 per cent in bleaches 106 and 107 is found by following curve B in Fig. 1. In this case 14.5 per cent bleach is a 96.8 per cent consumption of the total of 15.0 per cent used. At the 96.8 per cent consumption point, 280 minutes have elapsed. Thus there is a saving of 85 minutes or 22 per cent of the time as against bleaching to the same color with 12.3 per cent of bleach by the exhaustion method.

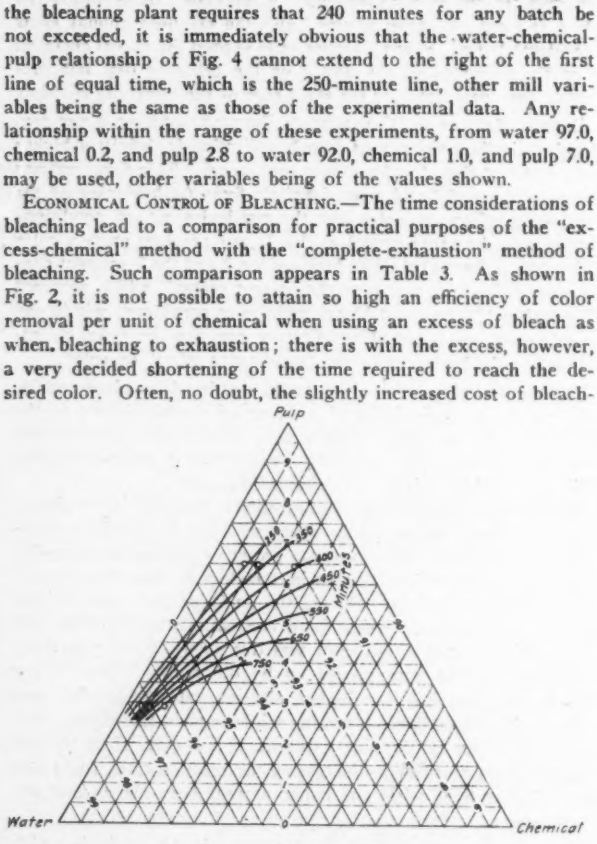

FIG. 4
Time to Exhaustion for Various Raw-Material Ratios.

In comparison B of Table 3 there is a saving of about half the time, while with 7 per cent consistence as is shown in comparison D only one-fourth the time is required to reach the desired color.

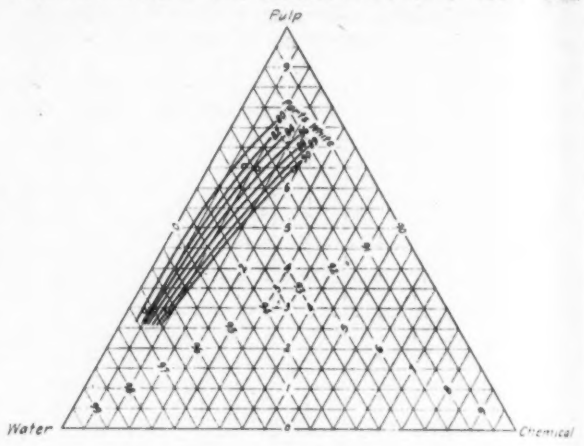

FIG. 5
Effect of Various Raw-Material Ratios on Color.

A decision as to the best method of bleaching, whether by excess chemical or by exhaustion, must be made in each case but it appears to be always justifiable to use a very slight excess of chemical in order to insure getting the desired degree of bleaching and to shorten the time. Several examples of these facts appear in Table 3.

BLEACH RATIO AND CHEMICAL COMPOSITION.—The last relation studied was the effect of bleach ratio on the chemical composition of the pulp. The analytical data on the chemical properties are given in Table 2. The lignin determination is not dependable for bleached pulps containing only a small amount of lignin. Consequently, this determination was not made in this study. The celluloses were determined according to our method 33,[8] the 1 per cent sodium hydroxide solubility by method 21,[9] and the copper number by the Staud and Gray method as modified in our method.[10]

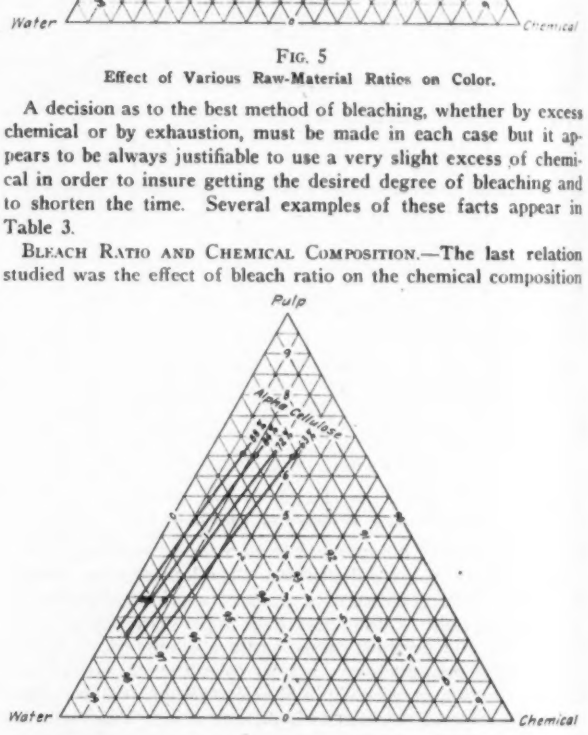

FIG. 6
Effect of Various Raw-Material Ratios on Chemical Composition.

As previously pointed out, the action of the chemicals on the fiber up to the bleachability point consists primarily in the destruction of lignin, natural dyestuffs, and certain other non-

colored constituents, with but slight action on the resistant cellulose. After the point of bleachability is reached and the non-cellulosic constitutents are gone, the attack of the chemical must be on the cellulose itself. Consequently, for each pulp there is a definite bleach requirement below which the chemical composition of the cellulosic constituents is not greatly altered by the bleaching action; this fact is indicated by the small magnitude of the changes in the sodium hydroxide solubility, the copper number and the cellulose values, as shown for instance in Table 2, experiments 104, 105, 120, and others. If a greater amount of chemical is allowed to act upon the pulp, the fibers are injured, as shown by the analytical data on bleaches 108, 109, and 122.

The injury to the fibers probably consists of the formation of oxycellulose and the degradation of the alpha cellulose to beta and gamma, which causes loss in strength as well as in yield of bleached pulp, and results in lower value for such uses as rayon processing.

Many analytical tests have been proposed, and most of them have been used, to show the chemical effect of bleaching agents on pulps. After making a complete analysis of pulps bleached with different bleach ratios, the effects of overbleaching appear to be shown most accurately by the alpha-cellulose determination, the one per cent sodium hydroxide solubility, and the copper number in the order mentioned.

In Table 2 it may be seen that the one per cent NaOH solubility of the various bleached pulps shows a slight increase with increasing bleach ratio up to the point of bleachability, varying from 9.7 to 11.5 per cent. After this point a marked change must occur, for at 30 per cent bleach ratio the solubility is almost doubled, being as high as 16.0 per cent for the 3 per cent consistence and 16.7 per cent for the 7 per cent consistence.

The cellulose determinations definitely show the progress of the chemical reaction with various bleach ratios. Reference is made again to Figure 6 where the effect on alpha-cellulose is presented. There is a decrease of about 3 to 5 per cent alpha-cellulose even with as low a bleach ratio as 12.3 per cent, while with 30 per cent as much as 28 per cent of the alpha-cellulose content is degraded. This is shown in Table 2 for bleaches 122, 123, and 124. There appears to be a corresponding increase in beta-cellulose with no change in the gamma until very high ratios are used, when a relatively slight increase occurs in the gamma content.

The copper-number determination appears to show trends. However, the variations in copper number caused by considerable differences in bleach ratios are small and of the magnitude of experimental errors, as is shown for bleaches 104 and 122 in Table 2. Where high temperatures and other factors enter to give a high rate of reaction, the copper number might show much higher values.

The usefulness of these methods for determination of the quality of a bleached pulp can be evaluated as follows: The one per cent NaOH solubility is more rapid and simpler but perhaps does not show so accurately the composition of the pulp as do the cellulose determinations. The alpha-cellulose especially shows any attack of the chemicals. The copper number method is more rapid but still somewhat uncertain in its analytical results.

Summary

In a study of the effects of the variation of the bleach ratio and independent factors in the bleaching of sulphite pulp, using a constant temperature of 35° C. and constant agitation of 5.66 r.p.m., it has been shown within the range of variables studied:

(1) With respect to the effect of variations of bleach ratio on color:

(a) That the higher the bleach ratio used, the whiter and higher will be the final color by either the exhaustion or the excess-chemical method.

(b) That the higher color-removing efficiency obtains in the exhaustion method.

(2) With respect to the effect of variations of bleach ratio on reaction rate:

(a) That in all cases the chemical consumption is a function of the logarithm of the time up to 90 per cent consumption of chemical.

(b) That the rate of reaction is approximately proportionately higher for higher bleach ratios.

(3) With respect to the effect of variations of bleach ratio on chemical composition:

(a) That the higher the bleach ratio used the greater the

TABLE 3.—AN ECONOMIC COMPARISON OF THE EXHAUSTION AND THE EXCESS-CHEMICAL METHODS OF BLEACHING

Bleach Run No.	Consistence Per cent	Desired white—Ives [1] Parts	Chemical applied [2] Per cent	Chemical to color Per cent	Excess chemical consumed Per cent	Per cent excess consumed Per cent	Chemical not used Per cent	Per cent not used [3] Per cent	Chemical lost [4] Per cent	Chemical applied ratio [5]	Time to color Mins.	Time gained Mins.	Time ratio [6]
						COMPARISON A							
104) 105) 120)	3	80	12.3	12.3	..	...	..	...	...	1.00	365	...	1.00
106) 107)	3	80	15.0	14.5	2.2	17.9	0.5	4.1	2.7	1.22	280	85	0.77
						COMPARISON B							
104) 105) 120)	3	80	12.3	12.3	..	...	..	...	...	1.00	365	...	1.00
108) 109)	3	80	17.0	15.0	2.7	22.0	2.0	16.2	4.7	1.38	190	175	0.52
						COMPARISON C							
106) 107)	3	82	15.0	15.0	..	...	..	...	...	1.00	440	...	1.00
108) 109)	3	82	17.0	16.5	1.5	10.0	0.5	3.3	2.0	1.13	400	40	0.91
						COMPARISON D							
118) 119)	7	82	12.3	12.3	..	...	..	...	...	1.00	235	...	1.00
122	7	82	17.0	14.0	1.7	13.8	3.0	24.4	4.7	1.38	60	175	0.25
						COMPARISON E							
108) 109)	3	83	17.0	17.0	..	...	..	...	...	1.00	550	...	1.00
124	3	83	30.0	20.5	3.5	20.6	9.5	56.0	13.0	1.76	110	440	0.20
						COMPARISON F							
122	7	83	17.0	17.0	..	...	..	...	...	1.00	375	...	1.00
123	7	83	30.0	23.0	6.0	35.4	7.0	41.2	13.0	1.76	80	295	0.21

[1] The tints of there pulps were identical except in comparisons E and F where the higher bleach ratios gave slightly higher red and green values.
[2] "Chemical applied" is the bleach ratio added at the beginning.
[3] This value represents the percentage of the exhaustion bleach ratio not used.
[4] This value is the sum of the "excess chemical consumed" and "chemical not used."
[5] This is the ratio between the two bleach ratios of applied chemical.
[6] "Time ratio" is the decimal part of the total time of the exhaustion bleach.

degradation of the cellulose as indicated by the lower alpha-cellulose value and the higher copper number, the higher one per cent NaOH solubility, and the higher beta- and gamma-cellulose values, especially beyond the point of bleachability.

(b) That the best guides to proper bleaching of a pulp are the alpha-cellulose value, the one per cent NaOH solubility, and the copper number, in the order given.

(4) In general, relative to bleaching:

(a) That the "consistence effect" is probably the result of increased chemical ratio and concentration, associated with accentuated surface action caused by the rubbing together of the fibers.

(b) That the "excess-chemical" method of bleaching may be the more economical in practice, if it is properly controlled, and if proper conditions, chosen through a careful economic study after technical data are available for the particular pulp, can be maintained.

VII—The Effect of Agitation on the Color, Reaction Rate and Chemical Composition in Bleaching Sulphite Pulp at Several Consistencies*

By P. K. Baird [1] and R. H Doughty [2]

The experiments here reported were carried out at the U. S. Forest products Laboratory to determine the effect of agitation upon the color, the rate of bleaching, and the chemical composition of a spruce sulphite pulp when it was treated with alkaline calcium hypochlorite solution at several consistences and at constant temperature.

Several factors that influence the bleaching reaction and the quality of the bleached pulp have been studied and reported upon in previous papers.[3] These factors are hardness of water, temperature, consistence, and bleach ratio. Throughout the experimental work, an attempt has been made to hold constant all factors except the one under investigation. Factors besides those just enumerated that may affect the bleaching are the characteristics of the pulp, the composition of the bleach liquor, especially its alkalinity, the method of adding liquor to pulp, and the agitation of the batch during bleaching.

Mechanical agitation may affect the bleaching in two different ways. The first effect may be considered to result from a mechanical action upon the fiber surfaces caused by the rubbing together of the fibers, which of course would be greater at higher rates of agitation, other factors being constant. It appears quite reasonable to suppose that such an action would have an effect upon the quality of the bleached pulp. Just what this effect is, whether favorable or unfavorable, and just how important it may be to the quality of the bleached pulp are matters that apparently have not yet been settled. Few of the statements on the subject, which appear at intervals in the literature, include experimental data in support of the opinions expressed.

The second possible effect of agitation is the influence that it may exert upon the rates of the chemical reactions involved. Such an effect has been observed by several investigators in heterogeneous systems similar to those present in bleaching pulp. Generally, though not invariably, in these systems a high speed of agitation (several hundred or even several thousand revolutions per minute) is necessary to increase the reaction rate to twice its value in the unstirred mixture, and indeed many such heterogeneous reactions proceed independently of the agitation rate.[3]

Experimental Conditions

The experiments considered in this paper were conducted with the same materials, equipment, and methods that were used in the previous studies, and that have been described in detail in the reports on those studies.[4]

Sixteen bleaches were run in the experiments now under consideration, two at each of the eight combinations of consistence and agitation rate selected. Consistences of 2, 5, and 7, per cent with rotational speeds of 1.04, 5.66, and 8.00 r.p.m., and intermittent agitation of the bleacher were used. The two bleaches agitated intermittently were run at 8.00 r.p.m. for a sufficient time to thoroughly mix the pulp and the bleach, and were run again at intervals thereafter whenever it became necessary to heat the batch to maintain the desired temperature. The temperature was held constant at 35° C. in all the bleaches. The bleach ratio used was 17 per cent, this being sufficient to produce a satisfactory white pulp.

The methods of analysis employed were those that are standard at the Forest Products Laboratory. The color of the pulps was determined with the Ives tint photometer,[5] using method No. 137 of the Laboratory manual.

Discussion of Results

The experimental data are summarized in Table 1, which shows the bleaching conditions, the times to exhaustion, the colors of the bleached pulps, and their chemical properties. The values given in this table are the average values for check bleaches made at each set of experimental conditions. Color and the chemical data on the unbleached pulps are included for comparison. The rate at which the bleaching progressed is shown graphically in Figure 1, where the logarithm of the bleaching time is plotted against percentage bleach consumption.

Reaction rate

Variation of agitation is without determinable effect on the time of bleaching under the conditions used. Since the bleaching agent is probably consumed by two general reactions, (1) actual bleaching of the colored materials and (2) degradation of the cellulose, and since the first of the general reactions itself may be made up of several individual reactions, it appears possible that the rates of all these individual reactions may be so altered that the resultant general one will follow a different course, while exhausting the bleaching agent in the same total time. However, if such differences in the course of the reaction occurred they were not evident. The time-bleach consumption curves (Fig. 1) were not sensibly altered by agitation at different rates within the range of agitation studied; the pulp is so well mixed with the liquid phase at the lowest rate used that more rapid stirring, up to the maximum employed, is without effect on reaction velocity. It should be noted that, at high consistences, it was necessary to assist the mixing somewhat in the early stages, in order to distribute the chemical uniformly through the batch before taking the first sample. In bleaches where this was not done, the values for the first one or two samples were seriously in error. The result of this additional mixing, however, can hardly be termed a true effect on the reaction rate.

At 2 per cent consistence a certain peculiarity was observed Fig. 1, A). Instead of the usual straight line, the bleaches at

* Presented at Fall Meeting of TAPPI, Wausau, Wis., Sept. 25-27, 1928.

[1] U. S. Forest Products Laboratory, Madison, Wis.

[2] Curran, C. E., and Baird, P. K. Bleaching of Wood Pulp: I.—Factors Affecting the Process and Their Control, Paper Trade J. 79, No. 1, 56-58 (July 3, 1924); II.—Effect of Hardness of Water, Paper Trade J., No. 3, 54-56 (July 17, 1924); III.—Effect of Temperature, Paper Trade J., No. 11, 45-47 (Sept. 11, 1924); IV.—Effect of Consistence, Tech. Assoc. Papers 8, (1925); V.—Effect of Consistence as Influenced by the Bleach Ratio, Tech. Assoc. Papers 10 (1927).

[3] Huber and Reid. Ind. Eng. Chem. 18, 535-538 (1926). This article includes a brief review of earlier work.

[4] See especially papers I and V under note 2.

[5] Pulp and Paper Manual of Testing Methods for Pulpwood, Pulp, Stuff, and Paper. 1st ed., 1928. U. S. Forest Products Laboratory.

[6] Baird, P. K. Paper Trade J. 84, No. 17, 48-54 (April 28, 1927).

this consistence gave a sort of reverse curve for the log time-bleach consumption relation. This form of curve may be ascribed to the method used in plotting, the apparent straightening at higher consistence being due to increased speed of reaction.

Color

In evaluating color, "parts blue" as read on the Ives photometer is considered to be a measure of the whiteness of the sheet. The color seems somewhat better, for each consistence, at the lower rates of agitation, both in tint and in brightness. The rate of change of color was observed during bleaching, using the samples withdrawn for liquor analysis. Since in a previous study no definite relation was found between color change and bleach consumption, the effect of agitation on this relation is not of immediate interest.

Chemical properties

The chemical quality of the pulp shows no marked alterations with varying agitation, except in the case of the solubility in 1 per cent sodium hydroxide, which is higher at lower rate of agitation for each consistence and at higher consistences for each rate of agitation. A similar trend can be seen in some of the other chemical values, but it is not definite. This behavior roughly parrallels that shown by the final color readings. It appears from the data in Table I that the agitation rate and the consistence have opposite effects on the color and the chemical properties of the bleached pulps.

The fact that the 1 per cent sodium hydroxide soluble values are the only ones obtained in this study that show any sort of definite variation leads to the suggestion that such a determination would be a valuable adjunct to the copper number determination in evaluating pulp quality. The alkali solubility determination is much easier to make and seems less liable to experimental error. Furthermore, the actual numerical variations in the 1 per cent sodium hydroxide solubility values are 4 to 6 times larger, for a given change in pulp quality, than are those in the copper number values. Thus, granting practically equal experimental accuracy, variations in the quality of a pulp would be much more definitely shown by its 1 per cent sodium hydroxide solubility.

TABLE 1
SUMMARY OF BLEACHING DATA[1]

Bleaching conditions				Pulp qualities							
				Color by Ives tint photometer			Chemical properties				
Bleach number	Rate of mixing, R.P.M.	Consistence, per cent	Time to exhaust bleach, minutes	Red, parts	Green, parts	Blue, parts	Ash, per cent	Hot water soluble, per cent	1 per cent NaOH soluble, per cent	Copper number	Alpha cellulose, per cent
165-166	1.04		950	87.9	87.0	81.7	0.34	1.77	9.47	2.99	83.8
162-164	8.00		938	87.5	86.3	80.0	0.34	1.96	8.84	2.64	84.3
155-156	1.04	5	560	88.5	87.0	83.3	0.37	2.12	10.71	3.15	84.3
151-152	5.66		543	88.5	87.0	82.3	0.34	1.66	8.98	3.06	81.5
153-154	8.00		550	88.3	86.4	82.5	0.34	1.93	9.26	3.41	83.5
157-158	1.04	7	483	89.1	86.7	83.0	0.33	1.69	10.00	2.82	84.1
159-160	8.00		490	89.2	87.5	83.0	0.32	2.20	10.00	2.76	84.1
167-168	Intermittent		513	89.9	88.0	83.4	0.19	1.62	10.52	3.00	82.9
Unbleached	....		...	77.5	68.0	62.0	0.23	1.77	11.70	2.70	88.2

[1] The values given in this table are the average results of two bleaches at each set of experimental conditions. The temperature was held constant at 35 degrees C. and the bleach ratio was constant at 17.0 per cent.

Conclusions

In general, the effects of varying agitation under conditions used in this study were found to be slight. Under other conditions of consistence, temperature, and bleach ratio, with other raw materials, or with much more vigorous agitation, it is possible that larger variations and more definite trends might be established. On the other hand, the conditions used were selected to approximate average commercial operating conditions.

The agitation used in the studies reported in earlier papers[2] appears from these data to have been sufficiently vigorous to have eliminated any effects caused by uneven mixing of pulp and chemical, as was planned. The other effects of agitation in the range studied are so small as to be unimportant in comparison with the effects of other variables. The studies now reported

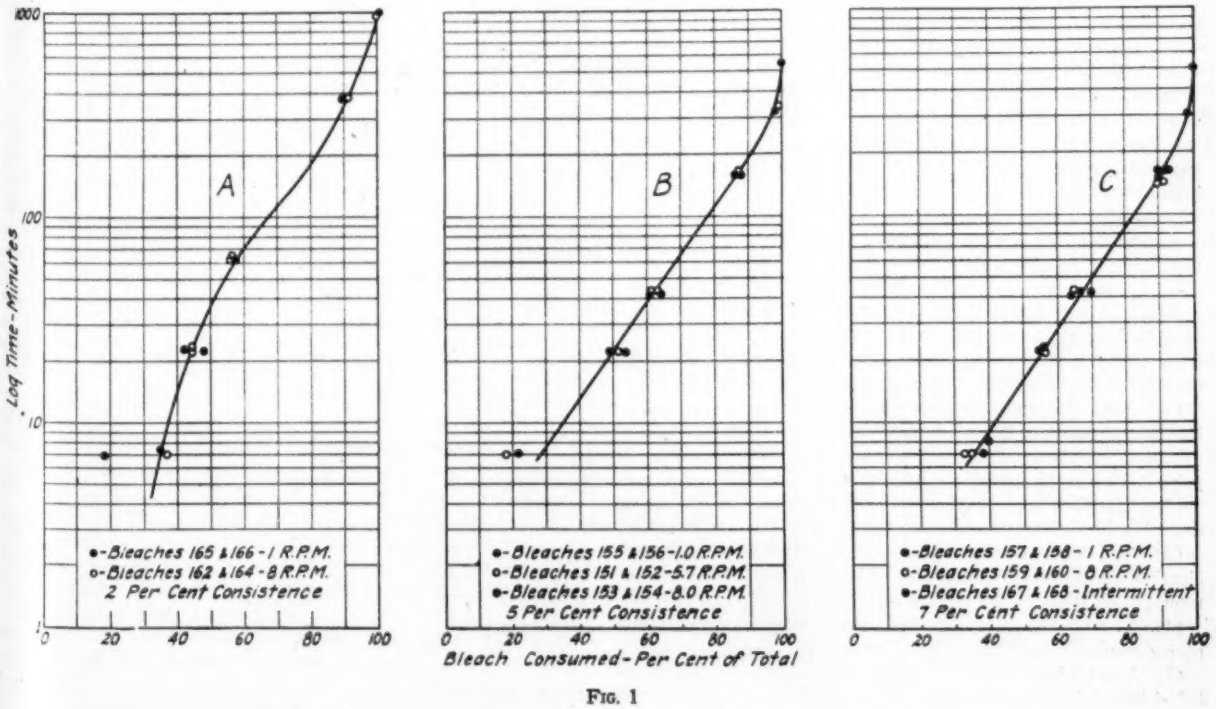
1000
100
10
1
Log Time - Minutes
A
B
C
•-Bleaches 165 & 166 - 1 R.P.M.
o-Bleaches 162 & 164 - 8 R.P.M.
2 Per Cent Consistence
•-Bleaches 155 & 156 - 1.0 R.P.M.
o-Bleaches 151 & 152 - 5.7 R.P.M.
•-Bleaches 153 & 154 - 8.0 R.P.M.
5 Per Cent Consistence
•-Bleaches 157 & 158 - 1 R.P.M.
o-Bleaches 159 & 160 - 8 R.P.M.
•-Bleaches 167 & 168 - Intermittent
7 Per Cent Consistence
0 20 40 60 80 100
Bleach Consumed - Per Cent of Total

FIG. 1

Time-Bleach Consumption Relation Temperature-35 degrees C. Bleach Ratio-17.0 per cent.

have further confirmed the observation already made on the total time required in bleaching at various consistences, and on the general course of the bleaching reaction, as regards consumption of bleaching and development of color.

Both the color values and the solubility in 1 per cent sodium hydroxide of the bleached pulps decrease slightly at increased rates of agitation, and increase with increasing consistence. Possibly increased mechanical action, whether caused by increased agitation or increased consistence, speeds up the attack of the bleach on the fiber surface at the expense of the true bleaching action on the colored compounds. More probably it results in mechanical removal from the fiber surface of any degradation products already formed and which if left on the fiber, might have protected it against further chemical attack. Increase in consistence, however, has an additional effect; it leads to increased concentration of bleaching agent in the system. Higher concentration should cause both increased speed of reaction and greater action upon the outer surface of the fibers, so that it would lead to more drastic bleaching of the surface of the fibers and thus to improved color, if its effect is not modified by other influences.

If it is assumed that the effect of chemical concentration outweighs the mechanical effect of increased consistence, then it can be understood why increased agitation and increased consistence appear to have an opposite effect upon the properties of the pulp. The assumption also shows why the effect of agitation, though small in any case, is more apparent at low than at high consistence.

The fact that agitation does not alter the rate of the bleaching reaction as a whole is also an indication that its effect is a purely mechanical one, and that agitation, in the range studied, has no effect on the diffusion rate of chemical into the fiber wall. This conclusion is not yet fully substantiated, however, since the range of conditions studied is small and also because a complex group of reactions such as those obtaining here might vary internally to a considerable extent and still give practically the same net result.

The most important conclusion that can be drawn from this study is that a minimum amount of agitation during the bleaching of wood pulp is apparently necessary for optimum results and, within the limits of the experimental conditions, the less the agitation above that necessary to maintain fairly uniform concentrations in the liquid phase the better the results, especially in respect to color. Thus a satisfactory bleaching process would be one in which the bleach and the pulp were rapidly and completely mixed at the beginning of the reaction, and then agitated very little or none at all thereafter. The practicability of such a process would depend, among other things, upon the consistence used. The saving in power and maintenance costs by such a procedure might be of considerable importance.

Summary

Bleaching experiments have been carried out with varying rates of agitation, at three different consistences, all other conditions being maintained constant. Within the limits of consistence and agitation used the following conclusions may be drawn:

(1) The total time of bleaching is unaffected; the rate of bleach consumption, however, may show irregularities in consequence of insufficiently rapid initial mixing of bleach liquor and pulp.

(2) The final whiteness of the pulp is slightly lowered by an excessive rate of agitation.

(3) The 1 per cent sodium hydroxide solubility of the pulp bleached at the lower consistences is slightly decreased at higher rates of agitation.

(4) The effects noted in (2) and (3) may be ascribed to a purely mechanical action on the fibers.

(5) The various effects of change in consistence already established have been substantiated.

(6) Certain modifications in industrial bleaching processes relative to economies in power and maintenance are indicated.

Paper Mills in Southern Sweden Active

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 26, 1928.—Activity prevailed in the paper industry in southern Sweden during the third quarter of 1928, according to a report from Consul R. A. Boernstein, Malmo, made public by the Department of Commerce.

The markets in certain of the European countries showed some dullness, but a fair number of sales were nevertheless concluded, particularly in Germany, where there has been an increasing interest in Swedish kraft for the manufacture of cement bags. The South American demand continued strong, and purchases by importers in China were likewise satisfactory, according to reports of the paper mills in this consular district.

No notable changes occurred in the news print market. Between 20 and 30 per cent of the 1929 production of the domestic mills is reported to have been already ordered for delivery during that year, and it can be safely stated that the news print mills are now operating under better conditions than at the same time in 1927.

Considerable quantities of kraft paper were sold during the quarter, the highest level being reached in August. There is a noticeably greater demand for bag papers, and the upward trend in prices for these products continues. Orders on hand for fine papers are also reported to be sufficient in number to keep the domestic producers of such paper busy for several months.

Hudson River Plant Now Running Full

[FROM OUR REGULAR CORRESPONDENT]

CORINTH, N. Y., November 26, 1928.—Paper machine No. 6, the last of the ten machines in the Hudson River plant of the International Paper Company to be re-conditioned, was placed in operation recently and now the entire plant is running full head. The wire was placed on No. 6 machine early in the week and minor repairs were completed to get it into first-class running shape. Now that the entire plant is worked to full capacity with an output of nearly 300 tons of news print and specialties daily the employment office maintained here by the company is less swamped with applications for jobs. Practically all hands who were working in the mill before the machines were closed down last January now have jobs similar to those they held at that time.

Gilbert J. Scofield Co. Lease Building

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., November 26, 1928.—The Gilbert J. Scofield Company, manufacturers of paper mill machinery, has taken a lease of the building formerly occupied by the International Harvester Company at North Pearl and Tivoli streets and is now making preparations to move. The company is now located on Broadway but officials announced that they would remove plant machinery to the newly acquired establishment soon after the first of the new year. Expansion of the company's business and the need of larger space for manufacturing activities were given as the prime reasons for the decision to move. A seven year lease of the new structure has been made with Edward S. Van Loon, owner.

Finch-Pruyn Employees Hold Dance

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., November 26, 1928.—At the monthly card party and dance held recently by the employees of Finch-Pruyn & Co. in the recreation rooms twenty-two tables were in play and the affair staged under the auspices of the recreation committee proved successful. The committee in charge of the affair included Clarence Doty, John Lynch, Henry Hart, John Gates, B. Cronin and T. Mulcahy. Music was furnished by the Black and White orchestra and dancing was enjoyed until a late hour. Men's prizes were awarded to Augustus Lapoint, James Mingo and Maurice O'Connell while awards for women employees went to Mrs. T. Wheeler, Esther Depew and May Mingo.

Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

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THE AMERICAN PAPER AND PULP ASSOCIATION

Edited by
THOS. J. BURKE, C. A., Sec.-Treas.

How to Handle Losses Covered by Insurance*

By Reed B. Timmers[1]

Two years ago I spoke before this association on void or unenforceable insurance policies which look attractive and all-protecting when paid for, and which turn out to be worth their weight in scrap paper when a loss occurs. This address was reprinted in the various trade journals of the paper industry, and apparently was the subject of a considerable amount of discussion in various mills throughout the country, immediately after the convention. Exactly how effective this was in securing results was impossible to determine, but it has been very gratifying to me and I am sure that Mr. Burke and other officers of the Cost Association will be pleased to know that I have found instances in a number of mills for whom we have started work during the past two years, where endorsements were added to insurance policies removing clauses which resulted in the making of valid policies of those formerly void, as the direct result of the Cost Association Convention of two years ago.

What It Was All About

For the benefit of those who were not present and who did not read the address and discussion in the trade journals, I will state briefly what it was all about. The sum and substance was this: before putting an insurance policy in your safe and paying for it, be sure that it will be operative in case of a loss, and that it will not be void on account of a breach of contract by the plant. Every insurance policy has certain warranties in it and states clearly that the violation of any of these warranties will make the policy void; for instance, every boiler insurance policy includes a warranty that the safety valves on each object will not be set to allow a pressure of over a certain number of pounds; every engine policy contains a warranty that the safety stop will be set not to allow a flywheel rim speed of over a certain number of revolutions per minute. When you have the safety valve of a boiler or the safety stop of an engine set higher than permitted in the policy, you are not putting anything over on the insurance company; all you are doing is fooling yourself by paying the same amount that it would cost to get insurance, and having in your possession only a piece of paper which looks like an insurance policy but is worth next to nothing in case of a loss. It is a fact that insurance companies oftimes do not raise the question of warranty violations when a loss is small in amount, but simply pay the bills. I have yet to see a company however, that does not check up in case of a large loss, and can say that if there are any companies who will pay a large loss where there has been a clear violation of warranty, I have yet to find out who they are.

Policy Full of Warranties

The fire insurance policy is full of warranties, as is every other type of policy which you can buy. The answer as to what to do about this condition is simple: it is to check each warranty in each insurance policy, listing any which you may be violating; then either change the conditions of your plant, or have an endorsement added to the policy changing its wording to meet your circumstances. If you cannot change your mill and the insurance company cannot change the policy, then the obvious solution is to change insurance companies. I have heard of agencies telling plants that the warranties in a policy mean nothing, and that the policy forms cannot be changed to meet conditions of the plants, so that the policies will be valid; I would say that I have never yet seen a hazard which cannot be covered by a valid contract, and I have never yet seen a warranty in a policy which was put there as an ornament only. It is my suggestion that each one here who has not already done so, take all of the insurance policies out of their safes when they return to their plants, and go over them, checking each clause.

When you have done this you have taken the first and most important step in the settlement of any loss.

Not Recognizing an Insured Loss

During the past two or three years I have been constantly surprised in plant after plant in discovering how few mills recognize an insured loss when they see it, and in finding out how much money they lost after they lost it. A great many plants have the idea that the fire policies cover only damage in which you see a whole lot of flame and find a lot of ashes, and that boiler policies cover only losses in which a boiler scatters itself and a building or two over a large amount of landscape. In our work we are constantly coming across records showing where no claim has been made on fire policies for burnouts in electrical equipment and for smoke damage on account of fires in contiguous buildings, both of which are almost entirely covered under fire insurance policies; or ruptures of single boiler tubes which are covered under boiler policies, due to a plant not even thinking that such a loss was covered, or due to their having thought of it and having been told by the representative of an insurance company that the coverage did not apply and having dropped the matter at that point. In some of these instances the losses have been sufficiently

* Delivered at the convention of the Cost Association of the Paper Industry, Cleveland, Ohio, October 25, 1928.

[1] Insurance Adviser, Albany, N. Y.

recent that we have been able to collect for the plant, but in the majority of cases, their only value has been that of an object lesson for the plant so that it would not occur again.

Water Under the Bridge

We are also constantly finding instances in which plants have had losses which they recognized as such but through lack of cooperation of departments, and through not knowing how to figure their loss properly have collected only a portion of the amount to which they were entitled. Ordinarily this type of an instance is also "water under the bridge" but on a couple of occasions in which the amounts were comparatively large, we have had the matter reopened by the insurance company, and a substantial addition to the original adjustment effected.

Probably the most important and common cause of this proportionate collection only, is lact of cooperation between departments, resulting after the loss had been adjusted in discoveries of damage which were not included in the settlement. It is an extremely common occurence in a plant to have a foreman bring up something six months after the loss was settled, which he thought had been included, but which had never reached the proofs of loss.

It is probably the dream of anyone adjusting a number of fire losses to participate in a settlement in which he feels absolutely certain that every major and minor item of the loss has been included at exactly the correct amount.

Seeing a Dream Come True

This past summer I had the privilege of having seen this dream come true, and of having received a liberal addition to my education in settling losses with the maximum possible efficiency. I believe that a description of just how this loss was handled will be far more effective than merely reciting general principles.

One afternoon last summer I received a phone call and was told that a part of a plant for which we work had caught fire about an hour earlier and that the fire was just beginning to be brought under control. My instructions were to notify the insurance companies of the fire immediately, and to obtain permission in writing from the insurance companies for us to do anything that we felt advisable in order to resume operation as quickly as possible; I also said that I would catch the first train, and would arrive at the plant early in the morning. My reasons for advising them to notify the companies at once was that every insurance policy calls for immediate notice in a certain form which is outlined in the policy itself; upon the occasion of any loss, reference should be had at once to the policies to make certain that the notice is given in the manner in which you contract to do it. My reason for recommending the obtaining of letters allowing anything to be done which we thought best, was that all direct damage policies require that a plant shall immediately separate the damaged from the undamaged property and retain this damaged property for the insurance companies to view as long and as often as they may desire to do so; the permission which we obtained allowed us to go ahead at once and repair damaged property without the delay of waiting for anyone to look at it, as well as to allow us to save a considerable amount of time by disposing of damaged property in the river or the most convenient other place.

Damage at the Plant

The damage at the plant consisted of a considerable loss to the building, particularly glass and part of the roof, all of the clothing of the paper machine, together with its belting, clutches, hood, paint and so forth, as well as damage to some stock in process.

The result of being able to start work at once was that the following morning when I arrived at the plant this machine room looked like a bee hive. All of the damaged equipment had been disposed of, a new false roof was half finished, the machine was being repainted, new clothing and belting were being put on, and everything was being put in order just about as fast as 80 to 100 men could do it. The total time lost on this machine was probably less than one-fourth that which would normally be suffered by the average plant.

The Most Important Step

Then followed what I believe to be by far the most important step in making certain that all damage will be included in the settlement. Instead of designating one man to take care of ascertaining the loss, a conference was called and attended by all office department heads, superintendents, and foremen whose departments could in any way be involved in the loss. The exact coverage of the policies, both Direct Damage and Use and Occupancy, was explained at this conference together with the methods used in reaching values of new materials, labor charges, and outside repair jobs. The meeting was then open for questions which were plentiful and the final result was that at the end of an hour or less there were about twenty men in the plant who knew just how to collect the data which would be needed at the time of final adjustment. A job number was assigned to the loss in exactly the same manner as if we had been faced by a particularly large piece of work in the machine shop, and it was arranged that all bills, orders, time cards and other memoranda pertaining to the loss should be marked accordingly and sent to the head of the Accounting Department for his file. Not only were repairs classified in this way but also the exact amounts of time lost by all machines which were shut down during the fire, as well as the value of the time and broke which were lost in getting the damaged machine operating again properly. We then decided that the matter of adjustment would be put over until repairs were practically completed.

A Steady Stream of Bills

Then about a month later after practically everything was apparently in perfect order and the steady stream of bills, vouchers, time cards and memos had halted, we set about getting our figures analyzed in preparation for the final adjustment. After making a recap of all of the items which had come through under this job number, and were in the file, another conference of office department heads, superintendents and foremen was called and attended in the same manner as the first one. This conference was worth about $7000 to the plant. The purpose of this conference was to settle up between ourselves the question of the inclusion of any items which had been the subject of any doubt on the part of any individual in the mill, and to make sure that we had every single item of damage on our recap sheet. All questions were answered, and then we took up the items on which bills or memoranda had not yet reached the Accounting file. Every one present tried to recall any instances of damage which were not covered by bills or time cards and a few things were brought out then. Each one at the conference then personally inspected all of the equipment and that part of the building for which he was responsible, and reported back to the Accounting Department. Damaged machinery which had been temporarily repaired and would have to be replaced in the near future, and many other items which could not help escaping any single individual, no matter how efficient who tried to handle a loss by himself, were brought out and the cost of replacement estimated.

Working Out Exact Loss

Then with our recap sheets showing each item which had been damaged, at all, we were in a position to work out the exact amount of our loss. The loss to stock was confined to stock in process and the loss to this was the manufacturing cost up to the point which it had reached in the manufacturing process plus the proper percentage of loading to cover general overhead.

The procedure in arriving at the loss to machinery, equipment and building was somewhat more complicated. All equipment which had been damaged and was repaired outside the plant was

included in our figures at the invoice price plus freight and cartage. Such work as was done by the plant's own repair department was included at the labor cost taken from the time cards, which amount was loaded with the proper percentage to include general supervision and overhead, and in which there was separately charged machine shop overhead where it was necessary to use the equipment and tools of that department.

Parts of building, machinery and equipment which were replaced new were invoiced at replacement cost, and the proper consideration was given the question of depreciation on equipment prior to the fire, which operated in favor of the insurance companies, and to depreciation to building, machinery and equipment caused by the fire which operated in our favor, of course.

Where it was found necessary to wait until some future date to repair or replace any machinery, equipment or parts of the building which had been damaged, we estimated the cost of repairs or replacements as accurately as possible, and these figures were properly included in our loss.

Use and Occupancy Loss Complete

The data covering the Use and Occupancy loss was so complete that we were able to reach our figures to the cent with no trouble at all. This was on a "Valued Form" instead of the ordinary "Proof of Loss Form" which the majority of plants have, or we would probably still be trying to figure out our U. and O. loss.

The final result was two conferences with the insurance companies, and our receiving checks in the exact amount of the figures submitted without one cent being knocked off.

The part which is most gratifying to me is that the loss has now been closed for several months, and no one at the plant has found even a ten cent item which we forgot to include.

It may be that the efficiency of this method of using conferences in such matters does not sound as if there was any radical importance to it; I myself never thought there was until the $7000 came to light, which could not possibly have been discovered by anyone in any other way.

Summary of the Work

To summarize, the work which should be done by individuals is as follows: Some one in the office should be the keyman in the loss, whose work is to see to it that all foremen, superintendents and department heads involved know how to get the figures together for him, then to see to it that they do it, and finally to analyze and assemble all charges together, including overhead on labor and other miscellaneous items. The search for damaged property should not be the work of someone in the office, but should be done directly by the department heads involved, after they know what they are looking for.

Since then I have used this plan of calling a conference on each loss in which I have been involved, and have recommended it to others who are handling losses constantly, and each of these have found it just as satisfactory, efficient and profitable as I have. In conclusion, I would say that there is nothing that can be substituted for efficiency within the plant in the handling of a loss; outside agencies can often be used very profitably in assisting the plant, but as soon as entire dependence is placed upon their ability to take the place of your own electrical engineer or superintendent, you begin to lose money.

Our own office is used constantly in the adjustment of losses, and we have found that limiting our work to that of steering the plant foreman and department heads, and to instructing the Accounting Department in the proper method of computing their losses and sitting in with the plant management at the time of adjustment brings the best possible results, and that any deviation from this routine is costly.

Distribution Costs and Profit Calculations*

By Noel M. Bassin, B. Sc. (Edin.), A.M.I.C.E.[1]

Many manufacturing companies take pride in the fact that they are operating a system of factory accounting which reflects fairly reliable manufacturing costs. Comparatively few have made a logical extension of such accounting to include the cost of distribution, so that they may be in a position to know something more than the average percentage of profit on their sales turnover.

Importance of Proper Analysis

The importance of a proper analysis of sales and distribution costs may be realized better by consideration of an actual example of varying methods of treatment.

Let us take the case of a company making and selling certain products, which can conveniently be classified into three main groups. The sales volume and factory cost of each group might be as follows:

Group	Sales		Factory Cost
A	$120,000	60%	$80,000
B	50,000	25%	30,000
C	30,000	15%	20,000
Total	$200,000	100%	$130,000

Assuming that the total cost of distribution for the period under review is $50,000, we should then say that, deducting the factory cost plus the distribution cost from the total sales, there is a profit of 10 per cent on sales. We might even go farther and assume that the total distribution expense should be divided against each of the product groups in the proportion which the sales of each group bear to the total sales. We should then obtain figures for distribution costs and profit percentages as below:—

Group		Distribution Cost	Profit on Sales
A	60%	$30,000	8 1/3%
B	25%	12,500	15%
C	15%	7,500	8 1/3%
Total	100%	$50,000	10%

From this table it is seen that Group B seems to be the most profitable one and the natural surmise would be that effort should be made to push the sales of this group, rather than the other two in order to obtain a greater profit on the business as a whole.

But it might be found that by a careful analysis of the elements included in the cost of distribution (shipping expenses, freight, salesmen's salaries, commissions and other selling expenses, advertising, etc.) and an allocation of these to each product group in accordance with a properly established distribution-cost system, distribution expenses accumulate against each group as below:

Group	Distribution Cost	Profit or Loss on Sales
A	$24,000	13 1/3% Profit
B	14,000	12% Profit
C	12,000	6 2/3% Loss
	$50,000	10% Profit

The profit percentages on sales are then entirely different from those in Table 2 and we find that in the case of the third group there is not a profit, but actually a loss.

Line Might Be Dropped

The manufacturer, in such an instance as this, might advance the argument that his line of products would be incomplete without group C and that he must expect to take a loss on the goods in this group in order to present to customers what he considers is a full line. There may be sufficient reason for doing this for a limited period of time, but there is no justification for continuing to manufacture and sell goods with the knowledge that such business is being done at a loss. If market conditions do not permit of an increase in selling prices and if it is not possible to manufacture and distribute at a decreased cost, the alternative is to discontinue the unprofitable line of goods or to purchase them outside at prices which will permit of resale at a profit.

Within group C in the example we have taken there may be

* Canadian Chartered Accountant
[1] Director, Industrial Engineering Corporation.

some products which, on further analysis within that particular group, would show a profit and others which will account for the loss. In this way it is possible to bring to light the unprofitable features of the business and to remedy them with the confidence resulting from a full knowledge of the relevant facts.

Adequate Knowledge Requisite

With the close margins of profit brought about by present-day competition, dependence on average profit statements and a failure to base sales on the facts as reflected by a thorough analysis of internal conditions, is a course which does not commend itself to successful business managers. The prosperity of the larger and most profitably operated manufacturing concerns has been based on effective management, reinforced with an adequate knowledge of costs and profits and with control methods which immediately reflect trends and tendencies, the signals by which action is guided in the formation of new policies and in the adjustment of existing ones.

Ontario Premier Seeks News Print Solution

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., November 26, 1928.—An ultimatum was issued to the pulp and paper magnates of Ontario by Premier Howard G. Ferguson today, advising them to get together in an effort to minimize the rapidly increasing serious effects of the news print price war now in progress as a result of alleged over production.

The Premier devoted most of the morning to the matter and at its conclusion issued a statement in which he said that paper-making communities are beginning to feel the pinch, that small shareholders are becoming apprehensive and that northern settlers are having their market for pulpwood from their clearings restricted.

He said that if there is over production paper makers would have to get together and divide the market between them so that the burden would be equally distributed. He hinted that if voluntary action is not taken by the financiers and manufacturers controlling the industry the Government might have further steps that would be necessary to take. The Prime Minister also intimated that if good results, of which he is hopeful, followed his advice to the heads of the industry, an interprovincial conference with the authorities of the Province of Quebec would not be necessary. Speaking of the situation as considered by him, the Prime Minister said:

"The chaotic condition in the paper industry has reached a stage in which it is affecting the communities depending upon it in Northern Ontario. Both wage earners and settlers with pulp wood to sell are feeling the situation and it is further giving serious concern to a large number of small investors with money in paper secureties.

"It is hoped that among themselves the industries will be able to get together and reach a solution that will improve conditions. If there is over-production the matter should be easily remedied. The industry should be looked at from a broad national standpoint and if there is any falling off in consumption or excess in production, some arrangement should be made to distribute the burden over the whole industry and not have the serious burden fall on a few districts or a few industrial units. The Government is taking cognizance of the situation and will undoubtedly insist that interests of the province be protected."

The Prime Minister said that the financial and managerial control of the industry are so arranged that action taken in Toronto would automatically affect Quebec, and vice versa, so that by making plain the will of the Ontario Government in the matter, the general situation in both provinces should be improved.

St. Regis Paper Co. Melon

[FROM OUR REGULAR CORRESPONDENT]

WATERTOWN, N. Y., November 26, 1928.—At a meeting of directors of the St. Regis Paper Company it was voted to offer common stockholders of the company at the close of business December 20, 1928 the right to subscribe to 150,000 shares of its authorized and unissued common stock at $75 a share, in the ration of one such additional share for each four shares held. The action of the directors on the basis of current market quotations for the stock is tantamount to cutting a melon for the stockholders of approximately $6,600,000 figuring the rights as worth $11. The board expects to maintain the present dividend rate of $3 a share on the increased capitalization.

The rights to subscribe to the new stock will be evidenced by transferable subscription warrants expiring at the close of business December 20, 1928 and shares of common stock subscribed for, will be issued on or after December 21 but not prior thereto. F. L. Carlisle & Co. has agreed to underwrite any shares not subscribed for by stockholders. The directors have authorized the use of the proceeds amounting to $11,250,000 for any of the following purposes:

1. Retirement of St. Regis Paper Company 6 per cent debentures, due 1931, of which $4,533,500 are outstanding.
2. Retirement of St. Regis Paper Company of Canada Ltd., 6½ per cent debentures due 1929-1934 of which $1,200,000 are outstanding.
3. Acquisition of additional shares of Northeastern Power Corporation. St. Regis Paper Company at present owns 1,490,680 shares of Northerstern stock giving it a controlling interest in the company. It carries its Northeastern Power holdings on its books at $21,297,635, an average price per share of only slightly more than $13, whereas at current market quotations these holdings have a value of nearly $70,000,000.
4. Expansion of the manufacturing business of the Company and its subsidiaries. Regular quarterly dividends of $1.75 a share on the outstanding preferred stock and of 75 cents a share on the outstanding capital stock, both payable Jan. 1, 1929 to stockholders of record December 10, 1928, were declared at the meeting.

Paper Products Co. Increases Stock

[FROM OUR SPECIAL CORRESPONDENT]

KALAMAZOO, Mich., November 26, 1928.—Paper Products Manufacturing Company, Lincoln avenue and Schippers lane, has been authorized by the secretary of state to increase its capital stock from $30,000 to $75,000. The concern has declared a 100 per cent stock dividend from earnings accrued during the past three years.

According to Harold Schrier, general manager of the concern, the company has enjoyed a splendid and steadily increasing run of business in the manufacture of school supplies and folded paper boxes, its chief products.

"In 1928 we tripled our 1927 output," said Schrier, "and in 1929 we expect to easily double this year's business. In case we do, it will be necessary to increase the size of our plant and add to our roster of employees. When we started in this business our original payroll numbered three. It is now up to 23."

Algonquin Renews Hearst Contract

[FROM OUR REGULAR CORRESPONDENT]

OGDENSBURG, N. Y., November 26, 1928.—The Hearst publications have renewed their contract with the Algonquin Paper Corporation, of this city, to extent for another year. The Hearst papers have received news print from the Algonquin Company for a number of years using an enormous quantity which keeps the plant running at capacity practically the entire year around. The new contract was signed by representatives of the Hearst publications and Frank A. Augsbury, president of the Algonquin Company.

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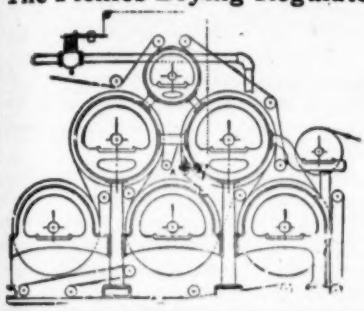

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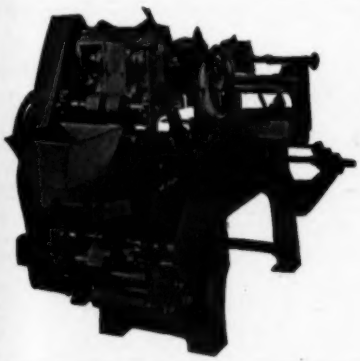

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Obituary

Stanley G. Linney

[FROM OUR REGULAR CORRESPONDENT]

CARTHAGE, N. Y., November 24, 1928.—In the death last week of Stanley G. Linney, the paper manufacturing industry of this section loses a man who has played a prominent part in its affairs for many years. He was born in Watertown in 1875 and received his education in the Watertown High School and the Northern Business College. After leaving school he entered the employ of the Newton Falls Paper Company and his close attention to all business details soon earned him a responsible position as chief accountant in the office department.

A few years later he left the employ of that firm and took the position as office manager of the Island Paper Company at Carthage which position he held for several years. About fifteen years ago he became connected with the Ryther & Pringle Company at Carthage and at the time of his death he was secretary-treasurer of the company.

He had been ailing since October, 1926, and had undergone several operations at the Hepburn Hospital in Ogdensburg for the removal of a growth on his face. For the past several weeks he had been confined to his home and on November 22 he passed away. He was active in the fraternal, social and business life of the community and had always taken a keen interest in athletic activities. The widow and two children are the survivors.

Theodore D. Griley

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, November 26, 1928.—Word was received in the Miami Valley Friday of the sudden death from paralysis of Theodore D. Griley, 43 years old, at his home in Baltimore, Ohio, where for a number of years he was the head of the Fairfield Paper Company. Mr. Griley had recently become interested in Dayton, Chillicothe and Middletown paper properties, and was preparing to locate in Middletown to assume a responsible position with the Gardner-Harvey Container Company, a new enterprise in that city which is now under construction. Mr. Griley's business ability was generally recognized and his Miami Valley associates were counting largely on his connection.

Mr. Griley was a director of the Middletown concern and was a stockholder in the Mead Pulp and Paper Company of this city. He was said to have been largely interested in other concerns. For a number of years he headed the Fairfield Paper Company, of which he was the founder and resigned a short time ago. He was a member of the Scottish Rite, Shriners and other fraternal organizations and of the Columbus, Ohio, Athletic Club and the Lancaster Country Club. He is survived by his widow and son, Richard, a student at Ohio State University.

Funeral services were conducted from his late home and were largely attended. The Miami Valley was represented at the rites.

Levi S. Nold

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., November 27, 1928.—Levi S. Nold, treasurer of the American Writing Paper Company, died suddenly at an Atlantic City hotel, Friday morning. Mr. Nold had been suffering from an illness for several weeks and went to Atlantic City to recuperate. He had improved and was believed to be on the road to health when the end came.

Mr. Nold came to the American Writing Paper Company from Racine, Wis., where he had been connected with General Motors, Inc., and previously had been with the General Electric Company in an executive capacity. His duties had taken him to all parts of the country. He came to Holyoke five years ago, and soon took an active interest in Holyoke affairs and at his death was a director of the Holyoke Chamber of Commerce, and member of the Holyoke Kiwanis Club. He was a Mason and Shriner and a member of the Mount Tom Golf Club.

Besides his wife, he leaves two daughters, Mrs. James A. Pilling of New Haven, and Miss Irene, a teacher in Florida; also four grandchildren. The funeral was held at the Dickinson street funeral parlors Monday morning at 10:30 and was private.

William Thompson

[FROM OUR REGULAR CORRESPONDENT]

LYONS FALLS, N. Y., November 19, 1928.—William Thompson, until recently night superintendent at the plant of the Gould Paper Company, died Friday at his home in Buffalo following an attack of heart disease. While connected with the paper plant he was a popular official and earned the esteem of all with whom he came in contact. He was connected with the company for about six years. His death is mourned by many friends in the paper industry.

Boston Paper Trade Happenings

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., November 26, 1928.—Carter Rice & Co. Corporation is putting in two new lines. One is Nu-Art Cover, made by the Hampden Glaze Paper and Card Co., a specialty paper of unique finish, with a figured design, produced in attractive colors, brown, rose, blue, grey, green, terra cotta, and yellow. The other is Wayside Text, a Strathmore line, of plate and antique finish, made in both book weight and cover weight.

The George W. Wheelwright Paper Company has issued an attractive folder, made of Superfine, white—Sub. 56 in connection with its Christmas work. The outside front cover shows in somewhat cubistic lines a modern young woman carrying packages. On the back cover is a miniature Christmas tree, bearing lighted candles. The folder lists a few of the forms, such as shopping lists, brochures, etc., which reflect the quality of the stock, carried in white, blue, buff and gray, matching Superfine Bristol. A list of New England distributors, of which 19 are in Boston, is given. The same firm has issued a sample of Superfine Bristol, buff, antique—Sub. 120, intended for holiday printing purposes. There is a wide selection of white and colors in antique and plate finish. The sample is of regular blotter shape, showing "The Toy Shop," containing various delights for small children on one side and an antique hanging lantern and a brief note of products of the company on the other.

John Carter & Co., Inc., have issued their new price list, with quotations on the basis of 500 sheets as the unit of weight and count. This company is distributing sample books of Dilcol Coated Book, a product of the Dill & Collins Co., Philadelphia. The concern is also sending out samples of J. C. Linen Ledger. This has been the special paper of this firm since the house was established and is named for John Carter, the founder of the company. Another line being put out by John Carter & Co. is Corinthian Cover, manufactured by the Geo. W. Wheelwright Paper Co., of North Leominster and Wheelwright, Mass.

In a Mulberry garb of the Milton line, "How" for November, published by Tileston & Hollingsworth Co. and edited by A. V. Howland, has appeared. Mulberry is the fourth recent addition to Milton Text and Cover. The other colors are brown, gray, blue, india, green, golden orange, and Terra cotta, in addition to the white. Milton Mulberry is made in Text, laid and wove, 26x40—60 pounds and 80 pounds to the ream and in Milton Mulberry Cover 20x26—65 and 23x35—101. The house organ, among other contributions, contains "A Joke on Me," Part II of a series by Judge Henry A. Shute, and analyses of the November sheet of the Tileston & Hollingsworth 1928 Calendar.

R. M. Boehm Joins Celotex Co.

R. M. Boehm, formerly with the Cornell Wood Products Company, Cornell, Wis., is now with the Celotex Company in Chicago.

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NEW YORK IMPORTS

WEEK ENDING NOVEMBER 24, 1928

SUMMARY

Cigarette paper	15 bls., 320 cs.
Wall paper	105 bls., 11 cs.
Paper hangings	64 bls., 11 cs.
News print	2,329 rolls
Printing paper	90 rolls, 62 bls., 6 cs.
Wrapping paper	17 bls., 27 cs.
Packing paper	33 cs.
Parchment paper	3 bls.
Baryta coated paper	13 cs.
Surface coated paper	55 cs.
Metal coated paper	2 cs.
Photo paper	20 cs.
Stencil paper, etc.	81 cs.
Litho paper	25 cs.
Colored paper	5 cs.
Decalcomania paper	46 cs.
Transparent paper	6 cs.
Filter paper	25 cs.
Drawing paper	31 cs.
Cover paper	12 cs.
Tissue paper	96 cs.
Greaseproof paper	47 cs.
Bowl paper	16 bls.
Writing paper	10 cs.
Note paper	2 cs.
Silk paper	6 cs.
Envelopes	34 cs.
Straw board	298 rolls
Miscellaneous paper	136 cs.

CIGARETTE PAPER

Max Spiegel & Son, Augustus, Genoa, 15 bls.
De Manduit Paper Corp., Schodack, Havre, 320 cs.

WALL PAPER

F. J. Emmerich, New York, Hamburg, 30 bls., 1 cs.
J. E. Bernard & Co., New York, Hamburg, 5 cs.
F. J. Emmerich, Adriatic, Liverpool, 37 bls.
Schmidt & Pritchard, Vancouver Maru, Hamburg, 1 ble.
G. J. Hunken, Dresden, Bremen, 2 cs., 1 ble.
Heemsoth, Basse & Co., Dresden, Bremen, 3 bls.
F. J. Emmerich, Minnekahda, London, 1 cs.
J. E. Bernard & Co., Olympic, Southampton, 1 cs.
J. E. Bernard & Co., Thuringia, Hamburg, 33 bls., 1 cs.

PAPER HANGINGS

Whiting & Patterson Co., Inc., Berengaria, Southampton, 7 cs.
W. H. S. Lloyd & Co., Minnekahda, London, 4 cs., 2 bls.
A. C. Dodman, Jr., Inc., Laconia, Liverpool, 62 bls.

NEWS PRINT

Guaranty Trust Co., Oscar II, Oslo, 283 rolls.
Hudson Trading Co., Oscar II, Oslo, 12 rolls.
F. Henjes, Jr., New York, Hamburg, 64 rolls.
Parsons & Whittemore, Inc., Dresden, Bremen, 726 rolls.
Parsons & Whittemore, Inc., Thuringia, Hamburg, 600 rolls.
Gilman Paper Co., Kolsnaren, Norrkoping, 44 rolls.
National City Bank, Kolsnaren, Norrkoping, 600 rolls.

PRINTING PAPER

J. Henschel, New York, Hamburg, 4 cs.
Keuffel & Esser Co., New York, Hamburg, 90 rolls.
J. I. Bernitz, Vancouver Maru, Hamburg, 62 bls.
Gallagher & Ascher, Olympic, Southampton, 2 cs.

WRAPPING PAPER

C. Steiner, New York, Hamburg, 19 cs., 17 bls.
Steffens Jones Co., Samland, Antwerp, 8 cs.

PACKING PAPER

Haule Wax Paper Manfg. Co., Thuringia, Hamburg, 33 cs.

PARCHMENT PAPER

Walker, Goulard, Plehn Co., Thuringia, Hamburg, 3 bls.

BARYTA COATED PAPER

Globe Shipping Co., Dresden, Bremen, 13 cs.

SURFACE COATED PAPER

1st National Bank of Boston, New York, Hamburg, 1 cs.
Globe Shipping Co., New York, Hamburg, 27 cs.
Brown Bros. & Co., Hagen, Hamburg, 4 cs.
Globe Shipping Co., Hagen, Hamburg, 23 cs.

METAL COATED PAPER

Hensel, Bruckman & Lorbacher, Republic, Bremen, 27 cs.

PHOTO PAPER

Guaranty Trust Co., New York, Hamburg, 15 cs.
J. H. Schroeder Banking Corp., Dresden, Bremen, 5 cs.

STENCIL PAPER, ETC.

Arlac Dry Stencil Co., New York, Hamburg, 81 cs.

LITHO PAPER

Fuchs & Lang Manfg. Co., Taketoyo Maru, Canton, 25 cs.

COLORED PAPER

Levi Sondheimer, Berengaria, Southampton, 1 cs.
B. F. Drakenfeld & Co., Adriatic, Liverpool, 4 cs.

DECALCOMANIA PAPER

C. W. Sellers, New York, Hamburg, 16 cs.
B. F. Drakenfeld & Co., Adriatic, Liverpool, 28 cs. (duplex).
B. F. Drakenfeld & Co., Adriatic, Liverpool, 2 cs. (simplex).

TRANSPARENT PAPER

G. W. Sheldon & Co., N. Amsterdam, Rotterdam, 6 cs.

FILTER PAPER

C. Schleicher Schull Co., New York, Hamburg, 18 cs.
H. Reeve Angel & Co., Inc., Minnekahda, London, 3 cs.
A. Giese & Son, Thuringia, Hamburg, 4 cs.

DRAWING PAPER

Keuffel & Esser Co., New York, Hamburg, 28 cs.
H. Reeve Angel & Co., Inc., Minnekahda, London, 3 cs.

COVER PAPER

International Forwarding Co., New York, Hamburg, 12 cs.

TISSUE PAPER

Old Master Paper & Pulp Co., New York, Hamburg, 92 cs.
Meadows, Wye & Co., Laconia, Liverpool, 4 cs.

GREASEPROOF PAPER

Central Union Trust Co., New York, Hamburg, 47 cs.

BOWL PAPER

Hurley Johnson Corp., Adriatic, Liverpool, 16 bls.

WRITING PAPER

W. J. Byrnes, Berengaria, Southampton, 2 cs.
Titan Shipping Co., Berengaria, Southampton, 1 cs.
Globe Shipping Co., New York, Hamburg, 3 cs.
W. J. Byrnes, Schodack, Havre, 1 cs.
Globe Shipping Co., Schodack, Havre, 1 cs.
B. Altman & Co., Olympic, Southampton, 2 cs.

NOTE PAPER

H. Reeve Angel & Co., Inc., Minnekahda, London, 2 cs.

SILK PAPER

Whiting & Patterson Co., Inc., N. Amsterdam, Rotterdam, 6 cs.

ENVELOPES

Globe Shipping Co., Dresden, Bremen, 34 cs.

STRAW BOARD

Perkins, Goodwin & Co., N. Amsterdam, Rotterdam, 154 rolls.
A. Vuyk, N. Amsterdam, Rotterdam, 144 rolls.

MISCELLANEOUS PAPER

Japan Paper Co., Augustus, Genoa, 10 cs.
International Forwarding Co., N. Amsterdam, Rotterdam, 18 cs.
E. Dietzgen & Co., N. Amsterdam, Rotterdam, 30 cs.
Globe Shipping Co., N. Amsterdam, Rotterdam, 22 cs.
F. L. Kramer & Co., N. Amsterdam, Rotterdam, 6 cs.
American Express Co., Dresden, Bremen, 50 cs.

RAGS, BAGGINGS, ETC.

Darmstadt, Scott & Courtney, Taketoyo Maru, Kobe, 175 bls. rags.
D. M. Hicks, Inc., City of Alton, Rotterdam, 29 bls. rags.
General Fibre Co., City of Alton, Rotterdam, 74 bls. rags.
Bank of The U. S., City of Alton, Rotterdam, 13 bls. rags.
Bank of The Manhattan Co., City of Alton, Rotterdam, 52 bls. rags.
G. W. Millar & Co., City of Alton, Rotterdam, 144 bls. rags.
Castle & Overton, Inc., Oscar II, Copenhagen, 32 bls. new cuttings.
Chase National Bank, Oscar II, Copenhagen, 105 bls. rags.
Darmstadt, Scott & Courtney, N. Amsterdam, Rotterdam, 104 bls. rags.
National Sanitary Bag Co., N. Amsterdam, Rotterdam, 60 bls. rags.
Salomon Bros. & Co., Schodack, Havre, 30 bls. rags.
P. Berlowitz, Schodack, Havre, 185 bls. rags.
Star Woolen Co., Schodack, Havre, 28 bls. rags.
Whaling Waste Products Co., Schodack, Havre, 169 bls. jute waste.
B. D. Kaplan, Schodack, Havre, 4 bls. rags.
Darmstadt, Scott & Courtney, Schodack, Dunkirk, 50 bls. rags.
Union Bank & Trust Co., Estrella, Valencia, 62 bls. rags.
Bank of The Manhattan Co., Estrella, Barcelona, 107 bls. rags.
Equitable Trust Co., Estrella, Barcelona, 131 bls. rags.
Chase National Bank, Thuringia, Hamburg, 153 bls. rags.
Chase National Bank, Thuringia, Hamburg, 140 bls. flax waste.
Brown Bros. & Co., Thuringia, Hamburg, 48 bls. rags.
Interstate Trust Co., Thuringia, Hamburg, 12 bls. rags.
Guaranty Trust Co., Thuringia, Hamburg, 12 bls. rags.
W. Schall & Co., Thuringia, Hamburg, 36 bls. jute card waste.
French American Banking Corp., Saugus, Genoa, 49 bls. rags.
Union Bank & Trust Co., Luxpalile, Barcelona, 70 bls. rags.
W. Schall & Co., Hagen, Hamburg, 36 bls. jute waste.
W. Schall & Co., Hagen, Hamburg, 7 bls. rags.
Haule Wax Paper Manfg. Co., Thuringia, Hamburg, 24 bls. paper waste.
E. J. Keller Co., Inc., Siberian Prince, —, 136 bls. threads.
E. J. Keller Co., Inc., Siberian Prince, —, 360 bls. flax waste.
E. J. Keller Co., Inc., Marengo, ——, 112 bls. flax waste.
Castle & Overton, Inc., Pres. Roosevelt, Bremen, 8 bls. rags.
Castle & Overton, Inc., Hamburg, Hamburg, 11 bls. waste, 5 bls. rags.
Castle & Overton, Inc., Stuttgart, Bremen, 29 bls. waste.
Castle & Overton, Inc., Carinthia, Ireland, 23 bls. waste.
Castle & Overton, Inc., Siberian Prince, Scotland, 161 bls. waste.
Castle & Overton, Inc., Marengo, Antwerp, 131 bls. waste.

OLD ROPE

Castle & Overton, Inc., Oscar II, Copenhagen, 393 coils.
W. Schall & Co., N. Amsterdam, Rotterdam, 48 coils.
W. Steck & Co., N. Amsterdam, Rotterdam, 47 coils.
Brown Bros. & Co., N. Amsterdam, Rotterdam, 105 coils, 44 bls.
Brown Bros. & Co., Samland, Antwerp, 55 bls.
Chase National Bank, Thuringia, Hamburg, 80 coils.
Amtorg, Ltd., Thuringia, Hamburg, 17 coils.

CHINA CLAY

L. A. Salomon & Bros., Laconia, Liverpool, 70 casks.

CASEIN

Kalbfleisch Corp., Pan America, Buenos Aires, 400 bags.
Champion Coated Paper Co., Pan America, Buenos Aires, 892 bags.
A. Klipstein & Co., Pan America, Buenos Aires, 417 bags.

WOOD PULP

Atterbury Bros., Inc., Oscar II, Oslo, 750 bls. wood pulp, 150 tons.
E. M. Sergeant & Co., Oscar II, Oslo, 150 bls. wood pulp, 25 tons.
Castle & Overton, Inc., N. Amsterdam, Rotterdam, 760 bls. wood pulp.
E. J. Keller Co., Inc., Hagen, ——, 792 bls wood pulp.
Castle & Overton, Inc., Hagen, Hamburg, 895 bls. wood pulp.
Price & Pierce, Ltd., Dresden, Bremen, 600 bls. sulphite pulp.
International Forwarding Co., Thuringia, Hamburg, 47 bls. wood pulp.
Castle & Overton, Inc., Thuringia, Hamburg, 3,111 bls. wood pulp, 366 tons.

(Continued on page 56)

For reliable running and average long life

LINDSAY FOURDRINIER WIRES

are unsurpassed

We make them for the largest and fastest machines.

Cylinder Wires All Sizes

The Lindsay Wire Weaving Co.

Collinwood Sta. CLEVELAND, OHIO

NOW!

PARIS BLACK EXTRA

in

FIBRE CONTAINERS

Our Paris Black Extra, made expressly for the paper industry, is now available in solid Fibre Containers, holding—four—12½ lb. Paper Bags. This represents 25% freight saving and convenience in storing and handling.

The HELLER & MERZ COMPANY
505 Hudson St., New York

287 Atlantic Ave., Boston — Chicago, 146 W. Kinzie St. — Springfield, Mass., 40 Albert St. — Philadelphia, 114 Market St

Factory—NEWARK, N. J.

LOCKWOOD'S DIRECTORY OF THE PAPER and ALLIED TRADES

1929 EDITION

The 54th Consecutive Annual Edition

(The Oldest Industrial Directory in the United States)

Corrected Up-to-Date

Ready for distribution Nov. 1st, 1928

Price $7.50

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Classified List of Pulp Mill Products
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Envelope Manufacturers
Glazed and Coated Paper Manufacufacturers
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Water marks and Brands, etc. etc

LOCKWOOD TRADE JOURNAL CO.
10 EAST 39TH ST.
New York, N.Y., U.S.A.

Where "PALCO" Packing Lifts the Friction Load Off the Shaft.

Photograph of a Centrifugal Pump Shaft badly worn by working against flax packing which did not carry sufficient lubricant to prevent friction.

CUTNO PACKING

For pumps handling caustic soda and similar chemicals. Its lubricant can be relied upon to resist the cutting action of these chemicals, and to keep the pump shaft so perfectly lubricated as to avoid friction. To prove our claims let us send you a free working sample to test under your own conditions.

GREENE, TWEED & CO.
Sole Manufacturers
109 Duane St., New York

Imports of Paper and Paper Stock

(*Continued from page 54*)

International Accep. Bank, Kolsnaren, Halmstad, 125 bls. sulphite.
E. M. Sergeant & Co., Kolsnaren, Gothenburg, 598 bls. dry soda pulp.
Price & Pierce, Ltd., Kolsnaren, Gothenburg, 125 bls. wood pulp.

WOOD PULP BOARDS

Lagerlof Trading Co., Hagen, Hamburg, 90 bls.

WOOD PULP WADDING

Birn & Wachenheim, N. Amsterdam, Rotterdam, 50 bls.

PHILADELPHIA IMPORTS

WEEK ENDING NOVEMBER 24, 1928

Castle & Overton, Inc., City of Alton, Rotterdam, 1,260 bls. wood pulp, 195 tons.
Castle & Overton, Inc., City of Alton, Rotterdam, 87 bls. rags.
J. A. Steer & Co., City of Alton, Rotterdam, 234 bls. rags.
W. Steck & Co., City of Altoh, Rotterdam, 35 bls. old rope.
Bank of The U. S., City of Alton, Rotterdam, 39 bls. rags.
National Waste Co., City of Alton, Rotterdam, 24 bls. rags.
Darmstadt, Scott & Courtney, Schodack, Dunkirk, 468 bls. rags.
J. M. Hagy Waste Works, Schodack, Dunkirk, 101 bls. rags.
Castle & Overton, Inc., Schodack, Havre, 423 bls. rags.
S. E. Ingber, Schodack, Havre, 50 bls. rags.
Salomon Bros. & Co., Schodack, Havre, 40 bls. rags.
J. M. Hagy Waste Works, Schodack, Havre, 46 bls. rags.
G. W. Millar & Co., Schodack, Havre, 53 bls. rags.
Equitable Trust Co., Schodack, Havre, 93 coils old rope.
J. E. Bernard & Co., Schodack, Havre, 53 cs. writing paper.
S. Birkenstein & Son, Saugus, Genoa, 202 coils old rope.
Interstate Trust Co., Saugus, Genoa, 292 bls. rags.
National City Bank, Saugus, Genoa, 63 bls. rags.
Castle & Overton, Inc., Saugus, Italy, 34 bls. rags.
Union Bank & Trust Co., Saugus, Marseilles, 138 rolls old rope.
Chemical National Bank, Luxpalile, Valencia, 198 bls. rags.
Anglo South American Trust Co., Luxpalile, Valencia, 151 bls. rags.
E. J. Keller Co., Inc., Schodack, ——, 36 bls. rags.
E. J. Keller Co., Inc., Sorvard, ——, 142 bls. rags.
E. J. Keller Co., Inc., L. Luckenbach, ——, 77 bls. rags.
Castle & Overton, Inc., Boston City, Bristol, 226 bls. rags.
Castle & Overton, Inc., Saco, Antwerp, 98 bls. rags.
Castle & Overton, Inc., ——, Germany, 1,055 bls. wood pulp.
Castle & Overton, Inc., Harburg, Germany, 1,916 bls. wood pulp.
Castle & Overton, Inc., Liberty Land, Italy, 86 bls. rags.
Castle & Overton, Inc., Carbet, France, 934 bls. rags.
Castle & Overton, Inc., Binnendyk, Rotterdam, 900 bls. wood pulp.
Castle & Overton, Inc., Tomalva, Antwerp, 61 bls. rags.
Castle & Overton, Inc., London Mariner, London, 75 coils old rope.

NEW ORLEANS IMPORTS

WEEK ENDING NOVEMBER 24, 1928

Castle & Overton, Inc., Dakarian, England, 144 bls. rags.

NEWPORT NEWS IMPORTS

WEEK ENDING NOVEMBER 24, 1928

Castle & Overton, Inc., Binnendyk, Rotterdam, 719 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING NOVEMBER 24, 1928

Castle & Overton, Inc., ——, Germany, 354 bls. wood pulp.

BOSTON IMPORTS

WEEK ENDING NOVEMBER 24, 1928

Atlantic National Bank, City of Alton, Rotterdam, 20 bls. rags.
Hollingsworth & Vose, City of Alton, Rotterdam, 48 bls. bagging.
International Purchasing Co., City of Alton, Rotterdam, 50 coils old rope.
Castle & Overton, Inc., City of Alton, Rotterdam, 31 bls. rags.
C. H. Powell & Co., City of Alton, Rotterdam, 30 rolls, 277 pkgs. straw boards.
E. J. Keller Co., Inc., Maybashi Maru, ——, 400 bls. rags.
E. J. Keller Co., Inc., Maybashi Maru, ——, 250 bls. rags.
O. E. Kiaer, Kolsnaren, Stockholm, 720 bls. wood pulp.
Scandinavian Pulp Agency, Inc., Kolsnaren, Gothenburg, 8,051 bls. kraft pulp.
Scandinavian Pulp Agency, Inc., Kolsnaren, Gothenburg, 2,288 bls. sulphite pulp.
Price & Pierce, Ltd., Kolsnaren, Gothenburg, 375 bls. wood pulp.
Beech Nut Packing Co., Kolsnaren, Gothenburg, 27 rolls paper.
Castle & Overton, Inc., Maryland, England, 99 bls. waste paper.
Castle & Overton, Inc., Hagen, Germany, 1,781 bls. wood pulp.
Castle & Overton, Inc., Binnendyk, Holland, 1,429 bls. wood pulp.

BALTIMORE IMPORTS

WEEK ENDING NOVEMBER 24, 1928

Castle & Overton, Inc., Eupatoria, Germany, 728 bls. wood pulp.
Castle & Overton, Inc., Harburg, Germany, 3,219 bls. wood pulp.
Castle & Overton, Inc., ——, Germany, 1,402 bls. wood pulp.
Castle & Overton, Inc., Bolivian, Antwerp, 187 bls. rags.
Castle & Overton, Inc., Bolivian, Antwerp, 169 bls. rags.
Castle & Overton, Inc., Binnendyk, Holland, 498 bls. wood pulp.
E. J. Keller Co., Inc., Bilderdyk, ——, 300 bls. wood pulp.

Motion Picture Shows Electric Arc Welding

The complete story of the application of electric arc welding in the fabrication and erection of the structural steel for the recently completed Upper Carnegie Building is portrayed in a motion picture produced by the Lincoln Electric Company, Cleveland, Ohio. The four story structure, whose construction has been filmed, was designed exclusively for arc welding and contains many new and unique features of construction which attracted marked attention from the many architects and engineers who inspected the building during election.

The motion picture opens with the fabricating of the steel in the fabricating shop and continues as the work progresses to the completion of the building, thus offering an intimate study of the building design and methods of fabrication and erection.

The picture is contained in three reels of 16 mm. film and can be conveniently shown to practically any size group in an office, club or class room. It is offered gratis for showing upon application to the Lincoln Electric Company.

Michigan Paper Men Entertained

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., November 24, 1928.—Michigan paper merchants (wholesalers) were guests Tuesday of the Bermingham and Prosser Company at a luncheon at the Park-American. There were some 25 present from Detroit, Lansing, Jackson, and Grand Rapids. Business meetings were held morning and afternoon. They were devoted to a general discussion of trade conditions and association affairs.

Paper Makers May Confer at Glens Falls

[FROM OUR REGULAR CORRESPONDENT]

ALBANY, N. Y., November 24, 1928.—There is a possibility that the city of Glens Falls may receive favorable consideration as the place for holding the 1929 convention and wage conference of the International Brotherhood of Papermakers which opens on the first Tuesday in March. The convention will be in session several days and over 175 delegates are expected to attend. The decision as to the place for the convention rests entirely with the executive board of the Brotherhood which will hold its annual meeting at Albany in January. Toronto and Montreal have both made bids for the convention and other cities are expected to extend invitations. James P. Burke, of Fort Edward, head of the pulp makers' union, will be present with many representatives from his organization who will participate in the wage conference.

Chemical Pulp Dull in Sweden

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., November 14, 1928.—The demand for chemical pulp in Sweden does not appear to have been very strong, but the dullness of the market there is believed to be of a seasonal character, and at the close of the quarter sales were again increasing in volume, according to reports received by the Department of Commerce. Delivery contracts have as a rule been for small or medium lots. Transactions involving more than 1,000 metric tons were relatively few. An exception, perhaps, might be found in bleached sulphites, the demand for which has been fairly good, and a number of contracts are reported to have been signed for 1929 delivery.

THE

"TRIMBEY-SHEVLIN"

A NEW PULP—

Screens 80 to 100 Tons Ground Wood per Day

Consistency—Screened Stock 0.8% to 1% Air-Dry

Requires only 25 to 30 Horse Power

Employs Only One-Half Usual Number of Deckers

Entirely Self-Cleaning

No Showers, No Thinning Water, No Wash Water.

A Pulp Screen Which is a Worthy Companion to The Trimbey Automatic Consistency Regulator and The Trimbey and Tibbitts Proportioning and Metering System

Ask Us

TRIMBEY MACHINE WORKS
Glens Falls, N. Y.

Made in Canada? Yes.

PQ

Would these improvements interest you?

One of our paper experts recently conducted a test using "S" Brand silicate in a book paper furnish. The silicated papers showed 3.9% increased weight, 7.9% increase in pop test, and 18% increased water resistance. Can we help you to improve your sheet in any or all of these respects?

Philadelphia Quartz Co.
SILICATE HEADQUARTERS
PHILADELPHIA

C. K. WILLIAMS & CO. ANCHOR BRAND DRY COLORS AND FILLERS EASTON, PA. U.S.A.

Red
Brown
Yellow
} Oxides

Talc

Yellow Ochres,
Umbers, Agalite

C. K. Williams & Company
EASTON, PA.

Sulphur

A FIRST REQUISITE

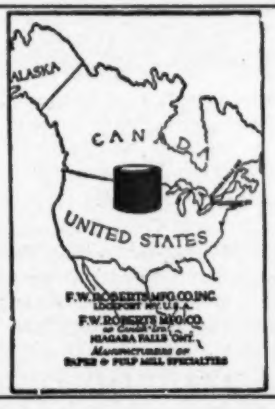
in

Paper Making

Large Production
Ample Reserves
Prompt Deliveries
Purity 99½%

TEXAS GULF SULPHUR CO.
41 E. 42nd Street New York City
Mine Gulf, Matagorda County, Texas

BURRS



BURRS

Paper Mill Stocks and Bonds

Quoted by Taylor & White, 45 Wall street, New York City, to whom all inquiry for quotations on these or any other Securities is referred.

BONDS	BID	ASKED
Abitibi Power & Paper 5s, 1943	90	91
Abitibi Power & Paper 6s, serially to 1934	100	102
American Writing Paper 6s, 1947	81	87
Bastrop Pulp & Paper 6½s, 1940	103	105½
Bedford Pulp & Paper 6½s, 1942	97	100
Belgo-Canadian Paper 6s, 1943	100	103
British-Columbia Pulp & Paper 6s, 1950	89	92
Brown Paper Mills Serial 6s, 1941	97	100
Brown Company 5½s, 1946	98	101
Bryant Paper 6s, 1942	98	101½
Canadian Paper Board 7s, 19337	97	99½
Cape Breton Pulp & Paper 6s, 1932	103	...
Celotex Company 6s, 1929	95	99
Celotex Company 6½s, 1939	100	102
Celotex Company of Chicago, Debenture 6s, 1936	95	98
Central Paper Company Serial 6½s, 1942	86	89
Central Paper 7s, 1934	78	...
Champion Coated Paper Serial 6½s, 1934	100	...
Champion Coated Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 6s, 1941	100	102
Champion Fibre Notes 8s, 1930	95	...
Champion Paper Corp. 6s, 1945	95	98
Container Corp. of America Debenture 6s, 1936, ex-warrants	101	104
Continental Paper Products 6½s, 1943	90	99
Cornell Wood Products 7½s, 1937	103	...
Crown Willamette 6s, 1951	101	102
Dells Paper & Pulp Serial 6s, 1938	95	98
Dixon Board Mills Serial 6s, 1942	80	...
Donnaconna Paper 5½s, 1948	93	...
Eastern Manufacturing Co. 7s, 1938	97	100
Escanaba Paper Serial 6s, 1939	98	100
Escanaba Paper 6½s, 1935	96	99
Filer Fibre Serial 7s, 1935	90	95
Fort Irange Paper 7s, 1942	101	...
Fort William Paper 6s, 1946	100	104
Fraser Company 6s, 1950	103	105
Hammermill Paper Serial 6s, 1939	100	...
Hawley Pulp & Lumber 6s, 1946	96	...
Hawthorne Paper Company 6s, 1937	80	...
Hoberg Paper & Fibre 7s, 1937	94	97
Industrial Fibre Corp. Debenture 8s, 1933	100	...
Itasca Paper & Prairie River Power Serial 5½s, 1938	99½	...
Itasca Paper & Prairie River Power Serial 6s, 1938	99	...
Jessup & Moore First 6s, 1945	83	90
Kalamazoo Vegetable Parchment 6s, 1938	99	101
Lake Superior Paper 6s, 1941	105	108
Marathon Paper Mills Serial 5½s, 1942	99	101
Marinette & Menominee 7½s, 1936	103	105
Mead Pulp & Paper 5% Notes Serially, 1937	95	100
Mead Fibre 7s, 1937	97	101
Minnesota Ontario Paper Serial 6s, 1945	97½	100
Murray Bay Paper Serial 6½s, 1947	102	105
Munising Paper Serial 6s, 1936	98	...
Nekoosa Edwards Paper 6s, 1928-42	96	...
Ontario Pulp & Paper 6s, 1931	108½	110½
Orono Pulp & Paper 6s, 1943	99	...
Orono Pulp & Paper 5s, 1941	96½	...
Oswego Falls Corp. 6s, 1941	99	102
Parker-Young Company 6½s, 1944	98	100
Paterson Parchment Paper 6s, 1938	101	103
Penobscot Chemical Fibre 6s, 1942	102	105
Port Alfred Pulp & Paper 5½s, 1947	98	100
Price Brothers 6s, 1943	105	...
Provincial Paper 5½s, 1947	98½	...
Queen City Paper 7s, 1933	98	...
River Raisin Paper 6s, 1936	98	100
Riordan Pulp & Paper 6s, 1942	102	104
Rolland Paper 6s, 1937	99	101
St. Croix Paper Serial 5s, 1937	99	...
St. Helen Pulp & Paper 6½s, 1931	99	102
St. Maurice Valley Corp. 6s, 1945	101	104
St. Maurice Valley Corp. 5½s, 1947	98½	100½
St. Regis Paper of Canada 6s, 1931	100	101½
St. Regis Paper of Canada 6½s, 1934	100	102
Smith (Howard) Paper Mills 7s, 1941	104	106
Spanish River Pulp & Paper 6s, 1931	108	110
Stevens-Thompson Paper 6s, 1942	94	96
Taggart Brothers 6s, 1944	95	100
Tait Paper & Color Industries 6s, 1934	88	92
Ticonderoga Pulp & Paper 5s, 1930	94	...
Ticonderoga Pulp & Paper 6s, 1940	100	102
Tomahawk Kraft Paper 6s, 1938	98	...
Tomahawk Pulp Paper 7s, 1932	99	...
Tonawanda Paper 5½s, Series 1941	99	102
Union Bag & Paper Power 6s, 1932	98	100
United Wall Paper Factories 6s, 1947	96	99
Warren (S. D.) Company 6s, 1945	103	105
Watab Paper 6½s, 1942	102	...
Waterway Paper Products 6s, 1931	100	101½
Wayagamack Pulp & Paper 6s, 1951	103	105
Westfield River Paper Serial 7s, 1943	89	93
Whitmer-Parson Pulp & Lumber 8s, 1938	20	25
Whitaker Paper 7s, 1942	108	110

STOCKS	BID	ASKED
American Box Board, Pfd.	9¼	10¼
American Box Board, Com.	9¼	10¼
Am. Tissue Mills, 7% Pfd.	90	93
British Columbia P. & P. Pfd.	65	75
Brompton Pulp & Paper, 8% Pfd.	100	...
Champion Fibre, 7% Pfd.	108	110
Diem & Wing, 7% Pfd.	92	97
Eastern Mfg. Co. 1st Pfd.	55	...
Great Northern Paper, Com.	75	78
Hammermill Paper, new 6% Pfd.	100	...
Hinde & Dauch, Com.	125	None Off.
Hinde & Dauch, 6% Pfd.	102	None Off.
Holyoke Card & Paper	160	None Off.
Marathon Paper Mills, Com.	150	...
Mengel Co., Pfd.	102	104
Midwest Box Co., 8% Pfd.	98	102
Midwest Box Co., 6% Pfd.	95	99
Louis De Jonge Co., 7% Pfd.	94	97
Oxford Papers, Com.	195	...
Oxford Paper Co., Pfd.	108	111
Penobscot Chemical Fibre, Com.	80	...
Richardson Co., Com.	170	...
Sabin Robbins Paper Co., 8% Pfd.	105	110
St. Croix Paper	155	...
St. Regis Paper Co., 7% Cum. Pfd.	105	108
Westfield River Paper Co., 1st Pfd.	Wanted	None Off.
West Virginia Pulp and Paper Company	55	57
West Virginia Pulp and Paper, Pfd.	100	103
Whittaker Paper, 7% Cum. Pfd.	105	None Off

CHICAGO PAPER MARKET ACTIVE

(*Continued from page 22*)

advertisers are those who have won commanding positions in their respective industries and this alone proves good advertising for the Eastern Manufacturing Company. Atlantic Bond, in the regular bond finish, is made in white and twelve colors. Ripple and Linen Finish and Cold Pressed Laid are made in the white only. Distributors for the Eastern Manufacturing Company in this territory are the LaSalle Paper Company.

Number 39 of the Westvaco Inspirations for Printers, issued by the West Virginia Pulp and Paper Company has caused a great deal of favorable comment among printers and advertisers in this section. "Westvaco Inspirations from Color" is the title of the book, printed on Velvo-Enamel 25 x 38-80. The following subjects are discussed from an authorative and education standpoint: "Color Lends Distinction to the Commonplace", "Color in Modern Hotel Advertising", "Economical Use of Color", "Attention-Compelling Red for the Second Color", "Picturing a Sensation in Two Colors", "Color Intensifies the Modern Advertising Slant", "Solid Color for Strength in Line Technique", "Modern Color Treatment in Advertising Booklets", "Dramatic Action in the Colored Illustration".

Birmingham & Prosser, Chicago, recently mailed out a broadside with attraction compelling color as the main item, describing their splendid line of Essex Super Finish Book Paper exceptionally usable for fine color work. Attractive examples of color on the Essex line are included in the piece of direct mail advertising.

The latest issue of "Rags" published by the Rag Content Paper Manufacturers, contains an interesting article under the title "Is Prestige an Illusion?" referring to the prestige to be derived from the use of good paper. It contains a strong argument to use stationery that will preserve and build up prestige. Several short articles written in an interesting fashion, assist materially in putting over the idea that better papers are well worth the money.

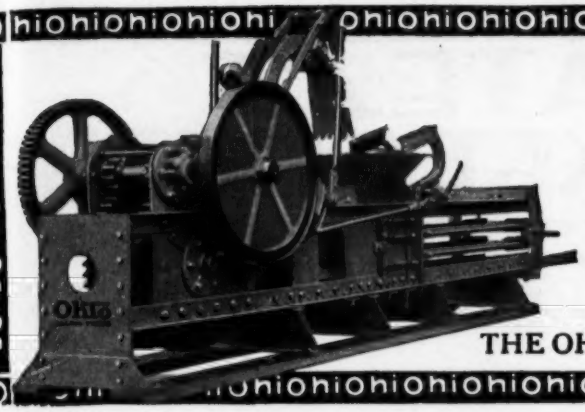
Mill Waste Disposal to be Studied

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., November 24, 1928.—The executive committee representing the paper manufacturers of Michigan is to meet in Lansing some time between December 5 and 15, according to information from the State Conservation Department. This meeting is called for reorganization and to make a more active study of efficient mill waste disposal. This committee has completed a general study of their problem. However, it now seems necessary to subdivide the committee for detail study of individual problems. Felix Pagenstecher, president of the Bryant Paper Company, is a member of the committee.

Specialties Sales Incorporates

HOLYOKE, Mass., November 26, 1928.—Specialties Sales, Inc., has been incorporated to manufactnre and otherwise deal in paper and paper products, with a capitalization of $50,000. The incorporators are William P. McCorkindale, South Hadley Falls; John P. Brassil and Helen M. Freeman, both of Holyoke.



FAMOUS
Ohio
BALING PRESS
Made in Three Sizes

There is no stopping, no lifting out of the plunger either for feeding in material, for tying up the bale, or removing it. All these things are necessary in the vertical press. They delay the operation, make more labor and cut down the output.

THE OHIO CULTIVATOR CO., Bellevue, Ohio

West Virginia Pulp and Paper Company

Manufacturers of

SUPERCALENDERED and MACHINE FINISHED BOOK and LITHOGRAPHIC PAPERS

Offset, Envelope, Bond, Writing, Cover and Music Paper, High Grade Coated Book, Index Bristol, Post Card, Kraft and Label Papers.

also

Bleached Spruce Sulphite and Soda, Kraft Pulp

200 Fifth Avenue, New York — 732 Sherman Street, Chicago
503 Market St., San Francisco, Cal.
122 East 7th St., Los Angeles, Cal.
Sixth and Chestnut Sts., Philadelphia, Pa.

WOODPULP AGENTS

PRICE & PIERCE, Ltd.,

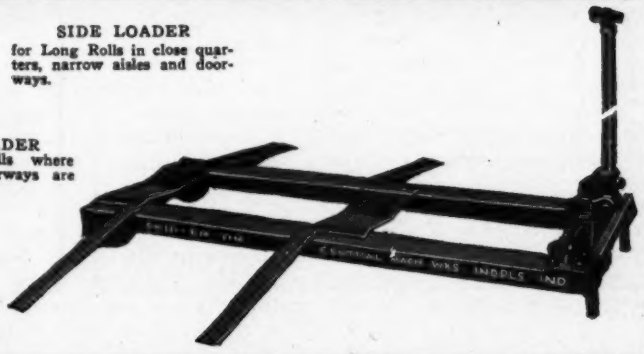
17 EAST 42ND ST.
NEW YORK

Handle them right ~~~ with SKID-EM-ON Trucks

SKID-EM-ON trucks are especially made for handling paper rolls. Handles them in less time, with less effort and without danger to paper stock. Try one at our expense for 30 days. Write stating the diameter, length and weight of the largest rolls you wish to handle. Also if you prefer End Loader or Side Loader.

SIDE LOADER
for Long Rolls in close quarters, narrow aisles and doorways.

END LOADER
for Short Rolls where aisles and doorways are amply wide.



Central Machine Works
437 South Senate Ave., Indianapolis, Ind.

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, November 28, 1928.

The local paper market during the past week has shown a normal activity, with supplies moving steadily into consumption and further good business expected before the end of the year. Prices are generally stable.

Verbal reports have been received of a considerable cut in box board prices, with a consequent increased demand for this product. A few manufacturers are offering chip board, formerly quoted at $42.50, now at $30.00, and filled news board, formerly at $45.00, now at $32.50, for prompt shipment only. Many mills are refusing orders under former prices and some have withdrawn from the market temporarily. The reduced scale is momentary. Liner and straw board are unaffected. Waste paper quotations are unchanged, except for one or two slight reductions.

Absorption of news print continues at an increased rate, with contract shipments going forward steadily; the rate of production is approximately 80 per cent of total capacity. Prices on 1929 contracts have been reduced substantially.

The market for the various grades of fine papers is firm, contracts being readily renewed at present prices. The mills are operating at about 90 per cent capacity. Tissues are in excellent request with increased consumption due to the holiday demand. Prices are firm. Coarse paper still enjoys a heavy demand, and the call for wrapping paper is sustained. Prices are practically unchanged.

Mechanical Pulp

A routine amount of business is being transacted in the ground wood market. Manufacturers report that contract shipments are moving readily. The demand for spot business has increased somewhat. Prices are generally firm, with few signs of concessions.

Chemical Pulp

The chemical pulp market maintains a normal aspect. Producers report a good volume of contracts for future business. Shipments for the current year in some cases have been taken at reduced rates. Of the various grades, bleached sulphite has evoked the most interest.

Old Rope and Bagging

The old rope market continues normally active, with a fair request for both the domestic and imported product. Prices are firm. Bagging activities are as last reported: the call for scrap bagging is slight, and for roofing bagging only moderate. Prices are stable.

Rags

A normal volume of business is going on in the rag market. The demand for domestic cotton cuttings is fair. Roofing grades have brought little interest. The foreign rag market is quiet, but dealers expect some brisk business shortly. Prices on the various grades, domestic and import, are virtually unchanged.

Waste Paper

The undertone of the paper stock market is strong. Heavy interest is maintained in book stock. Prices are steady. Hard white and soft white shavings are in good request, as well as those grades of waste paper used in the paper mills. Old kraft machine compressed bales are moving rapidly. Prices are unchanged, except for one or two cuts in news accompanying the drop in board prices.

Twine

The demand for twine is consistently seasonal. Wrapping paper enjoys a heavy trade and the various grades of twine are moderately active. Producers anticipate more good orders before the new year.

Stream Purification in Virginia

At a conference held in Richmond, Va., on November 17, 1928, a systematic program pointed toward the solution of the stream pollution problem of Virginia, was outlined. The conference was called by the technical sub-committee appointed last August by Major A. W. Robertson. With this committee, C. M. Baker, engineer for the American Paper and Pulp Association, is cooperating.

In his summary of stream conditions in Virginia, Mr. Baker pointed out the necessity for protecting unpolluted streams and gradually correcting conditions in the streams which receive industrial wastes. Mr. Baker stated that present stream conditions are better in Virginia than in most states, but that energetic efforts are needed to prevent further pollution.

With the $7,500 available for the work, surveys will be conducted on the James, South Fork of the Shenandoah, and the New Rivers, during the first year. In addition to these surveys preliminary studies will be undertaken in the utilization and disposal of industrial wastes.

Several educational institutions and municipalities have indicated an interest in this work and have offered assistance.

Otto Ihling's 82nd Birthday

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., November 24, 1928.—Otto Ihling, secretary-treasurer of Ihling Brothers and Everard, will Monday, December 3, be 82 years of age. Despite his advanced age, the day will undoubtedly find him at his desk and attending to business as usual.

Born in Germany, he came to America as a boy of six years and it was in 1869, or 59 years ago that he founded the concern here, later to be known as Ihling Brothers and Everard, one of the leading wholesale paper, printing, book binding, office supplies and regalia concerns of western Michigan.

Two years ago Ihling Brothers and Everard celebrated founders day and made special occasion of Mr. Ihling's 80th birthday.

New Alloy Cast Iron Pipe

The Walworth Company, Boston, Mass., has just announced the development of a new alloy cast iron pipe which has all the virtues of, and important additional advantages, over ordinary cast iron pipe. Some of the features of this new product are its strength, flexibility and the fact that it can be easily cut and threaded anywhere within its own length with hand pipe tools. The flexibility of this new product reduces to a minimum the danger of breakage in handling and its strength has been tested by weight of seven men (1600 lbs.) standing on a 30 foot span which caused a deflection of only 17 inches without damage to pipe or couplings.

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This Machine Will Grind Your Knives Faster and Better

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VALUATIONS
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SPECIFICATIONS

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, November 28, 1928.

BLANC FIXE.—The blanc fixe market has shown a routine activity during the past week. Contract shipments are moving satisfactorily. Prices remain the same: the pulp selling at from $42.50 to $45 per ton, in bulk; the powder at from 3½ cents to 3⅝ cents per pound, in barrels, at works.

BLEACHING POWDER.—Contract prices on bleaching powder for 1929 remain the same as for the current year. The demand for this product has improved. Bleaching powder is selling at from $2.00 to $2.35 per 100 pounds, in large drums, at works.

CASEIN.—The casein market continues steady. No changes in price were reported. Domestic casein is quoted at from 15½ cents to 17 cents per pound, and the imported at from 16 cents to 16½ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA.—Producers have announced that no change will be made in contract prices for 1929. The market is steady: solid caustic soda sells at from $2.90 to $2.95; the flake and the ground at from $3.30 to $3.35 per 100 pounds, in large drums, at works.

CHINA CLAY.—China clay continues to enjoy a heavy demand. Prices are firm. Imported china clay is quoted at from $15 to $25 per ton, ship side. Domestic paper makers' clay sells at from $8 to $9 per ton, and pulverized at $10 to $12 per ton, at mine.

CHLORINE.—Having announced a reduction of half a cent per pound on all contracts for 1929, manufacturers report most contracts for next year closed. Chlorine sells at 3 cents per pound, in tanks, or multi-unit cars, at works, on contract, and at 4½ cents per pound, in cylinders, car lots, at works.

ROSIN.—Trade in the rosin market is firmer. At the naval stores those grades of rosin used in the paper mills are selling at from $9.65 to $9.75 per 280 pounds, ex dock, in barrels. Wood rosin sells at from $7.40 to $8.20 per 280 pounds, in barrels, at southern shipping points.

SALT CAKE.—The salt cake market is very firm with increased demand due to shortage of niter cake. Prices are very stable and most producers are well out sold for the coming year. Salt cake now sells at from $16 to $18 per ton. Chrome salt cake still sells at from $14 to $15 per ton, in bulk, at works.

SODA ASH.—Manufacturers have made announcement that contract prices on soda ash will adhere to the current schedule. Contract prices on soda ash, in car lots, at works, per 100 pounds, according to grade, are: in bags, $1.32½, in barrels, $1.55.

STARCH.—Business in the starch market during the past week was normally active. Supplies are moving satisfactorily into consumption. Prices are unchanged: special paper making starch sells at $4.07 per 100 pounds in bags, and at $4.24 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—Demand for this product is excellent and the market is showing a strong undertone. Prices are steady. Commercial grades are quoted at from $1.40 to $1.55, and iron free at from $1.90 to $2.05 per 100 pounds, in bags, at works.

SULPHUR.—The sulphur market is in a sound position. Contract consignments are moving steadily. Prices are steady. Sulphur is quoted at $18 for yearly contracts of 1,000 tons or over; $20 for any less quantity over that period; and $21 for spot and nearby carloads.

TALC.—Transactions in the talc market continue at a normal pace. Prices remain unchanged. Domestic talc sells at from $16 to $18 per ton, at eastern mines; the imported at from $18 to $20 per ton, ship side.

W. A. Chilson With Marathon Mills

Warren A. Chilson, formerly chemical engineer of the Parker-Young Company of Lincoln, N. H., is now a member of the research staff of the Marathon Paper Mills in Rothschild, Wis.

Market Quotations

Paper

(F. o. b. Mill)

Ledgers	11.00	@38.00
Bonds	9.00	@45.00
Writings—		
Extra Superfine	14.00	@32.00
Superfine	14.00	@32.00
Tub sized	10.00	@15.00
Engine sized	8.00	@11.00
News—		
Rolls, contract	3.25	@ —
Rolls, transient	3.25	@ 3.50
Sheets	3.65	@ 3.85
Side Runs	3.00	@ 3.75
Book, Cased—		
S. & S. C.	6.00	@ 7.50
M. F.	5.75	@ 7.00
Coated and Enamel	7.50	@12.00
Lithograph	7.50	@12.00
Tissues—Per Ream—		
White No. 1	.75	@ 1.00
Anti-Tarnish	1.35	@ 1.90
Colored	1.00	@ 2.00
White No. 2	.75	@ .80
Kraft	1.00	@ 1.10
Manila	.75	@ .80
Kraft—		
No. 1 Domestic	6.25	@ 6.50
No. 2 Domestic	4.50	@ 4.75
Southern	4.25	@ 4.50
Imported	6.50	@ 7.00
Manila—		
No. 1 Jute	9.00	@ 9.25
No. 2 Jute	7.75	@ 8.50
No. 1 Wood	4.75	@ 5.25
No. 2 Wood	4.00	@ 4.50
Butchers	3.75	@ 4.25
Fibre Papers—		
No. 1 Fibre	5.00	@ 5.50
No. 2 Fibre	4.75	@ 5.25
Common Bogus	2.75	@ 3.00
Screenings	3.00	@ 3.25
Card Middles	4.00	@ 5.00
Glassine—		
Bleached, basis 25 lbs.	13.00	@16.00
Bleached, basis 20 lbs.	15.00	@16.00

(Delivered New York)

Boards—per ton—		
News	32.50	@45.00
Straw	52.50	@55.00
Chip	30.00	@42.50
Binders' Boards	65.00	@67.50
Sgl. Mla. Ll. Chip	45.00	@52.50
Wood Pulp	80.00	@85.00
Container	55.00	@62.50
85 Test Jute Liner	55.00	@57.50

Mechanical Pulp

(Ex-Dock)

No. 1 Imported—		
Moist	28.00	@31.25
Dry	32.00	@34.00

(F. o. b. Mill)

No. 1 Domestic	26.00	@29.00
Screenings	15.00	@20.00

Chemical Pulp

(Ex-Dock, Atlantic Ports)

Sulphite (Imported)—		
Bleached	3.65	@ 4.40
Easy Bleaching	2.80	@ 2.90
No. 1 strong unbleached	2.50	@ 2.75
Mitscherlich unbleached	2.55	@ 3.25
No. 2 strong unbleached	2.40	@ 2.60
No. 1 Kraft	2.50	@ 2.75
No. 2 Kraft	2.40	@ 2.50
Sulphate—		
Bleached	3.75	@ 3.85

(F. o. b. Pulp Mill)

Sulphite (Domestic)—		
Bleached	3.40	@ 4.75
Easy Bleaching Sulphite	2.60	@ 2.75
News Sulphite	2.40	@ 2.65
Mitscherlich	3.00	@ 3.25
Kraft (Domestic)	2.50	@ 3.30
Soda Bleached	3.15	@ 3.30
Sulphate Screenings—		
Coarse	.75	@ .85
Refined	1.50	@ 1.65

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	11.00	@11.50
New White, No. 2	8.00	@ 8.50
Silesias No. 1	7.25	@ 7.75
New Unbleached	10.50	@11.00
Washables	4.25	@ 4.75
Fancy	5.50	@ 6.00
Blue Overall	6.75	@ 7.25
New Blue Prints	5.25	@ 5.50
New Soft Blacks	5.25	@ 5.75
Mixed Khaki Cuttings	4.75	@ 5.25
Pink Corset Cuttings	8.00	@ 8.50
O. D. Khaki Cuttings	5.25	@ 5.75
Men's Corduroy	3.75	@ 4.25
New Mixed Blacks	3.50	@ 3.75

Old Rags

White, No. 1—		
Repacked	5.50	@ 6.00
Miscellaneous	4.50	@ 5.00
White, No. 2—		
Repacked	3.00	@ 3.50
Miscellaneous	2.50	@ 2.75
St. Soiled, White	2.00	@ 2.15
Thirds and Blues—		
Repacked	2.25	@ 2.50
Miscellaneous	1.75	@ 2.00
Black Stockings	3.25	@ 3.75
Roofing Rags—		
Cloth Strippings	1.70	@ 1.80
No. 1	1.70	@ 1.80
No. 2	1.55	@ 1.65
No. 3	1.30	@ 1.40
No. 4	1.25	@ 1.35
No. 5A	.95	@ 1.05

Foreign Rags

New Dark Cuttings	2.50	@ 3.00
New Mixed Cuttings	2.75	@ 3.25
New Light Silesias	7.00	@ 7.50
Light Flannelettes	7.50	@ 8.00
Unbleached Cottons	10.00	@11.00
New White Cuttings	10.50	@11.50
New Light Oxfords	7.00	@ 7.50
New Light Prints	5.50	@ 6.50
No. 1 White Linens	7.25	@ 8.00
No. 2 White Linens	5.50	@ 6.25
No. 3 White Linens	4.50	@ 5.00
No. 4 White Linens	3.00	@ 3.50
Old Extra Light Prints	2.75	@ 3.25
Ord. Light Prints	2.25	@ 2.50
Med. Light Prints	1.90	@ 2.10
Dutch Blue Cottons	2.15	@ 2.30
German Blue Linens	2.50	@ 2.75
German Blue Cottons	2.00	@ 2.25
Checks and Blues	1.75	@ 1.90
Lindsay Garments	1.80	@ 1.85
Dark Cottons	1.60	@ 1.65
Old Shopperies	1.50	@ 1.55
New Shopperies	1.50	@ 1.60
French Blues	2.10	@ 2.25

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	1.60	@ 1.70
Domestic	1.70	@ 1.75
Wool Tares, light	1.60	@ 1.65
Wool Tares, heavy	1.60	@ 1.65
Bright Bagging	1.60	@ 1.65
Small Mixed Rope	1.25	@ 1.40
Manila Rope—		
Foreign	3.35	@ 3.65
Domestic	3.25	@ 4.00
New Burlap Cut	2.75	@ 3.00
Hessian Jute Threads—		
Foreign	3.50	@ 4.00
Domestic	3.25	@ 3.50

Old Waste Papers

(F. o. b. New York)

Shavings—		
Hard, white, No. 1	3.25	@ 3.50
Hard, white, No. 2	2.40	@ 2.55
Soft, White, No. 1	2.55	@ 2.65
White envelope cuttings	3.25	@ 3.50
Flat Stock—		
Stitchless	1.70	@ 1.80
Overissue Mag.	1.70	@ 1.80
Solid Flat Book	1.65	@ 1.75
Crumpled No. 1	1.15	@ 1.25
Solid Book Ledger	2.00	@ 2.10
Ledger Stock	1.75	@ 1.80
Manilas—		
New B. B. Chips	.65	@ .75
New Env. Cut	2.40	@ 2.60
New Cuttings	1.60	@ 1.85
Extra No. 1 old	1.25	@ 1.35
Print	.80	@ .85
Container	.65	@ .70
Bogus Wrapper	.75	@ .85
Old Kraft Machine Compressed bales	1.85	@ 1.9[illegible]
News—		
No. 1 White News	1.75	@ 1.80
Strictly Overissue	.85	@ .95
Strictly Folded	.70	@ .75
No. 1 Mixed Paper	.55	@ .60
Common Paper	.35	@ .40

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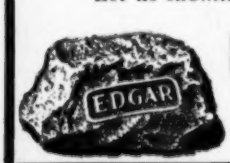

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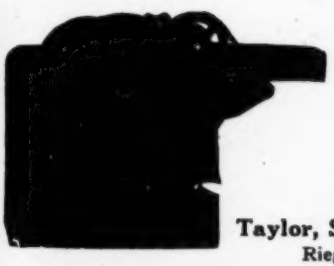

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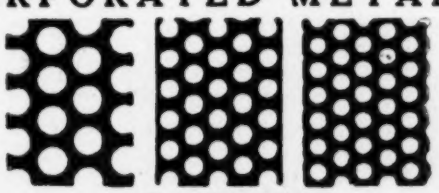

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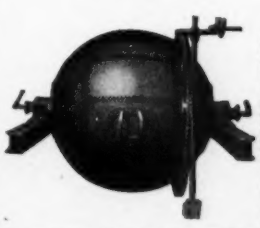

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Twines

(F. o. b. Mill)

Cotton—			
No. 1	.39	@	.40
No. 2	.37	@	.38
No. 3	.36	@	.37
B. C., 18 basis	.38	@	.40
A. B. Italian, 18 basis	.48	@	.53
Finished Jute—			
Dark 18 basis	.24	@	.25
Light 18 basis	.27	@	.28
Jute Wrapping, 3-6 Ply—			
No. 1	.19	@	.21
No. 2	.18	@	.20
Tube Rope—			
4-ply and larger	.16	@	.17
Fine Tube Yarn—			
5-ply and larger	.21	@	.25
4-ply	.25	@	.29
3-ply	.28	@	.32
Unfinished India—			
Basis	.13	@	.14
Paper Makers Twine Balls	.11	@	.12
Box Twine, 2-3 ply	.15	@	.17
Jute Rope	.17	@	.19
Ameri. Hemp, 6	.29	@	.31
Sisal Hay Rope—			
No. 1 Basis	.16	@	.18
No. 2 Basis	.14	@	.16
Sisal Lath Yarn—			
No. 1	.14	@	.16
No. 2	.12	@	.14
Manila Rope	.22	@	.24

CHICAGO

All Rag Bond	.35	@	.41
No. 1 Rag Bond	.25	@	.35
No. 2 Rag Bond	.14	@	.25
Water Marked Sulphite Bond	.09	@	.12
Sulphite Bond	.06¾	@	.11
Superfine writing	.18	@	.24
No. 1 fine writing	.14	@	.18
No. 2 fine writing	.12	@	.14
No. 3 fine writing	.08½	@	.12
No. 1 M. F. Book	.06½	@	.07¾
No. 2 M. F. Book	.05¼	@	.06¾
No. 1 S.&S.C. Book	.06¾	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07½	@	.12
Coated Label	.07½	@	.10
News—Roll, mill	.03½	@	.04¾
News—Sheets, mill	.03¾	@	.04¾
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.04	@	.04½
No. 1 Kraft	.06¼	@	.06½
Southern Kraft	.03¾	@	.04
No. 2 Kraft	.04	@	.04¼
Wood Pulp Boards	.04¼	@	.06¾
Sulphite Screenings	.03	@	.03¼
Manila Tissue—			
24x36 Sheet	.07	@	.07¼
White Tissue—			
20x30 Sheet	.07¼	@	.07½
Boards, per ton—			
(Delivered Central Territory)			
Plain Chip	37.50	@	41.00
Solid News	47.50	@	—
Manila Lined Chip	55.00	@	—
Container Lined—			
(Delivered Central Territory)			
85 Test	65.00	@	70.00
100 Test	70.00	@	—

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 Hard White	2.80	@	2.90
White Env. Cuttings	2.90	@	3.00
No. 1 Soft Shavings	2.50	@	2.60
No. 1 Mixed	1.00	@	1.05
No. 2 Mixed	.90	@	1.00
Ledger & Writings	1.55	@	1.65
Solid Books	1.25	@	1.35
Blanks	1.70	@	1.80
Krafts	1.90	@	2.05
New Kraft Cuts	2.25	@	2.35
Manila Envelope Cuttings	2.00	@	2.10
Ex. No. 1 Manila	1.55	@	1.65
Print Manila	.90	@	1.00
Folded News (oversize)	.65	@	.75
Old Newspapers—			
No. 1	.65	@	.75
No. 2	.60	@	.65
Mixed Papers—			
No. 1	.70	@	.80
Roofing Stocks—			
(F. o. b. Chicago, net cash)			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

(F. o. b. Mill)

Bonds	.07	@	.40
Ledgers	.11	@	.40
Writings—			
Superfine	.13	@	.18
Extra fine	—	@	.22
Fine	.20	@	.26½
Fine, No. 2	.16	@	.35
Fine, No. 3	.12	@	.30
Book, M. F.	.06	@	.07
Book, S. S. & C.	.06	@	.07½
Book, Coated	.11	@	.16
Coated Lithograph	.09	@	.12
Label	.09	@	.12
News	.03¾	@	.04
No. 1 Jute Manila	.08½	@	.09
Manil Sul., No. 1	.04½	@	.06
Manil No. 2	.04	@	.04½
No. 2 Kraft	.06	@	.06½
No. 1 Kraft	.07	@	.07½
Common Bogus	.03	@	.03½
Straw Board	52.50	@	75.00
News Board	45.00	@	—
Chip Board	42.50	@	—
Wood Pulp Board	4.50	@	5.00
(Carload Lots)			
Binder Boards—			
No. 1, per ton	80.00		
No. 2, per ton	75.00		
Carload lots	60.00	@	70.00
Tarred Felts—			
Regular	53.00	@	55.00
Slaters (per roll)	84	@	.94
Best Tarred, 1-ply (per roll)	.85	@	1.95
Best Tarred, 2-ply (per roll)	1.44	@	1.54
Best Tarred, 3-ply	1.93	@	2.08
New Blue	—	@	.04
New Black Soft	.05	@	.05¾
New Light Seconds	.02½	@	.03
New Dark Seconds	1.85	@	2.00
Khaki Cuttings—			
No. 1 O. D.	.05½	@	.05¾
No. 2 Mixed	.04½	@	.04¾
Corduroy	.03	@	.03½
New Canvas	.08½	@	.09
New Black Mixed	.03¾	@	.04½

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.65	@	1.80
Domestic	1.75	@	2.00
Manila Rope	3.50	@	4.00
Sisal Rope	1.50	@	—
Mixed Rope	1.10	@	1.25
Scrap Burlaps—			
No. 1	1.50	@	1.60
No. 2	1.15	@	1.25
Wool Tares, heavy	3.00	@	—
Mixed Strings	1.15	@	1.25
No. 1, New Light Burlap	2.50	@	2.75
New Burlap Cuttings	2.00	@	2.25

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	3.20	@	3.25
No. 2 Hard White	2.75	@	3.00
No. 1 Soft White	2.50	@	2.60
No. 2 Soft White	1.90	@	2.00
No. 1 Mixed	1.50	@	1.60
No. 2 Mixed	.90	@	1.00
Solid Ledger Stock	1.80	@	1.90
Writing Paper	1.70	@	1.75
No. 1 Books, heavy	1.50	@	1.60
No. 2 Books, light	1.20	@	1.25
No. 1 New Manila	2.40	@	2.50
No. 1 Old Manila	1.50	@	1.60
Print Manila	.95	@	1.00
Container Manila	.85	@	.90
Old Kraft	2.25	@	2.50
Common Paper	.60	@	.65
No. 1 Mixed Paper	.65	@	.70
Straw Board, Chip	.65	@	.75
Binders Board, Chip	.65	@	.75
Overissue News	.90	@	.95
Old Newspaper	.70	@	—

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1	.10½	@	.11
New White, No. 2	.07	@	.07½
Light Silesias	.07	@	.07¼
Silesias, No. 1	.07½	@	.08
Black Silesia, soft	.05	@	.05½
New Unbleached	.10½	@	.11
Washable, No. 1	.04½	@	.05
Washable, No. 2	.03	@	.03½
Fancy			
Cottons—According to grades—			
Blue Overall	.07½	@	.08

Domestic Rags (Old)

White, No. 1—			
Repacked	4.25	@	4.50
Miscellaneous	3.50	@	3.75
White, No. 2—			
Repacked	2.00	@	2.25
Miscellaneous	1.60	@	1.80
Black Stockings (Export)	3.90	@	4.25
Roofing Stock—			
Foreign No. 1	1.70	@	1.85
Thirds and Blues—			
Repacked	2.00	@	2.25
Miscellaneous	1.60	@	1.80
Black Stockings (Export)	3.90	@	4.25
Roofing Stock—			
Foreign No. 1	1.70	@	1.85

BOSTON

Paper

(F. o. b. Mill)

Ledgers—			
Sulphite	.07½	@	.13
Rag content	.15	@	.30
All rag	.38	@	.52½
Bonds—			
Sulphite	.06½	@	.11½
Rag content	.13	@	.30
All rag	.36½	@	.65
Writings	.07	@	.20
Superfines	.11	@	.31
News	.03½	@	.04
Book, Super	.06	@	.09
Book, M. F.	.05¾	@	.08½
Book, Coated	.08½	@	.20
Coated Litho	.09	@	.12
Label	.09½	@	.15
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06½
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.05½	@	.06½
No. 2 Kraft	.04	@	.04¾
Common Bogus	.02	@	.02¼
Delivered New England points			
Straw Boards, rolls .009			52.50
Straw Board in Sheets, basis 35s to 70s	54.50	@	55.00
Filled News Board	30.00	@	32.50
Chip Board			30.00
Single Manila Lined Chip			45.00
Single White, Patent Coated Newsboard			
Bender	70.00	@	80.00
Wood Pulp Board	80.00	@	85.00
Binder Boards	70.00	@	75.00
(F. o. b. Mill)			
Tarred Felts—			
Regular, carload lots	65.00	@	—

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	3.25	@	3.75
No. 2 Hard White	2.60	@	2.90
No. 1 Soft White	2.50	@	2.60
No. 1 Mixed	1.10	@	1.15
No. 2 Mixed	.85	@	.90
Solid Ledger Stock	2.35	@	2.45
No. 1 Books, Heavy	1.55	@	1.60
No. 1 Books, Light	—	@	1.15
Manila Env. Cuttings	2.00	@	2.25
No. 1 Old Manila	1.20	@	1.25
White Blank News	1.70	@	1.75
Old Kraft	1.90	@	2.00
Print Manila	.80	@	.90
No. 1 Mixed Paper	.55	@	.60
Overissue News	.85	@	.90
Old Newspapers	.75	@	.80
Box Board, Chip	.65	@	—

Bagging

(F. o. b. Boston)

Gunny No. 1—			
Foreign	—	@	1.50
Manila Rope—			
Foreign	3.25	@	3.50
Domestic	3.25	@	3.50
Mixed Strings	.90	@	1.00
Jute Wool Strings	—	@	1.00
Scrap Burlaps	1.50	@	1.60
Scrap Sisal	1.50	@	1.75
Scrap Sisal for shredding	1.75	@	2.00
Wool Tares, heavy	—	@	1.50
New Burlap Cutting	1.90	@	2.00

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New White No. 1	.09	@	.10
Silesias, No. 1	.06	@	.06¼
New Unbleached	.09½	@	.10
Fancy	.04	@	.04½
Washable	.04	@	.04¾
Cottons—According to grades			
Blue Overalls	.06	@	.06½
New Black, soft	.04	@	.04¾
Khaki Cuttings	.04	@	.04¾
Corduroy	.03	@	.03¾
New Canvas	.08	@	.08½

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	04½	@	—
White No. 1—			
Repacked	4.75	@	5.25
Miscellaneous	3.00	@	—
White No. 2—			
Repacked	04½	@	05
Miscellaneous	03½	@	04
Twos and Blues	—	@	2.50
Thirds and Blues—			
Repacked	2.00	@	2.15
Miscellaneous	1.75	@	1.90
Roofing Stock—			
No. 1	1.65	@	1.75
No. 2	1.45	@	1.55
No. 3	1.05	@	1.10
No. 4	1.10	@	1.15

Foreign Rags

(F. o. b. Boston)

Dark Cottons	1.50	@	1.55
New No. 1 Shirt Cuttings	9.00	@	10.00
Dutch Blues	2.00	@	2.12½
Lace Curtains	5.25	@	5.50
New Checks & Blues	4.25	@	4.50
Old Fustians	1.90	@	—

TORONTO

Paper

(F. o. b. Mill)

Bond—			
No. 1 Sulphite	.12½	@	—
No. 2 Sulphite	.10¾	@	—
No. 1 Colored	.13½	@	—
No. 2 Colored	.11¼	@	—
Ledgers (sulphite)	—	@	—
Ledgers, No. 1	.36	@	—
Ledgers, No. 2	.27	@	—
Writing	.09½	@	.10
News f. o. b. Mills—			
Rolls (carloads)	3.25	@	—
Sheets (carloads)	3.75	@	—
Sheets (2 tons or over)	4.00	@	—
Book—			
No. 1 M. F. (carloads)	7.50	@	—
No. 2 M. F. (carloads)	7.25	@	—
No. 3 M. F. (carloads)	7.00	@	—
No. 1 S. C. (carloads)	8.00	@	—
No. 2 S. C. (carloads)	7.75	@	—
No. 3 S. C. (carloads)	7.50	@	—
No. 1 Coated and Litho	14.50	@	—
No. 2 Coated and Litho	13.50	@	—
No. 3 Coated and Litho	12.75	@	—
Coated tinted	.15	@	—
Wrapping—			
Rag Brown	4.95	@	—
White Wrap	5.25	@	—
"B" Manila	5.80	@	—
No. 1 Manila	6.65	@	—
Fiber	6.65	@	—
Kraft, M. F.	7.00	@	—
M. G.	7.00	@	—

Pulp

(F. o. b. Mills)

Ground Wood	30.00	@	31.00
Sulphite easy bleaching	62.00	@	—
Sulphite news grade	62.00	@	—
Sulphite, bleached	75.00	@	—
Sulphate	65.00	@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

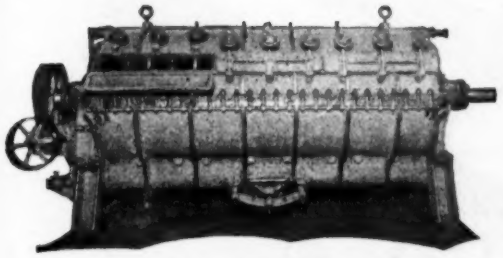
Shavings—			
White Env. Cut	3.00	@	—
Soft White Book Shavings	2.85	@	—
White Blk. News	1.60	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	1.40	@	—
Light and Crumpled Book Stock	1.25	@	—
Ledgers and Writings	1.50	@	—
Solid Ledgers	1.50	@	—
Manilas—			
New Manila Cut	1.50	@	—
Printed Manilas	1.00	@	—
Kraft	2.25	@	—
News and Scrap—			
Strictly Overissue	.80	@	—
Strictly Folded	.80	@	—
No. 1 Mixed Paper	.70	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.11½	@	—
Fancy Shirt Cuttings	.05½	@	

Stop your pulp losses



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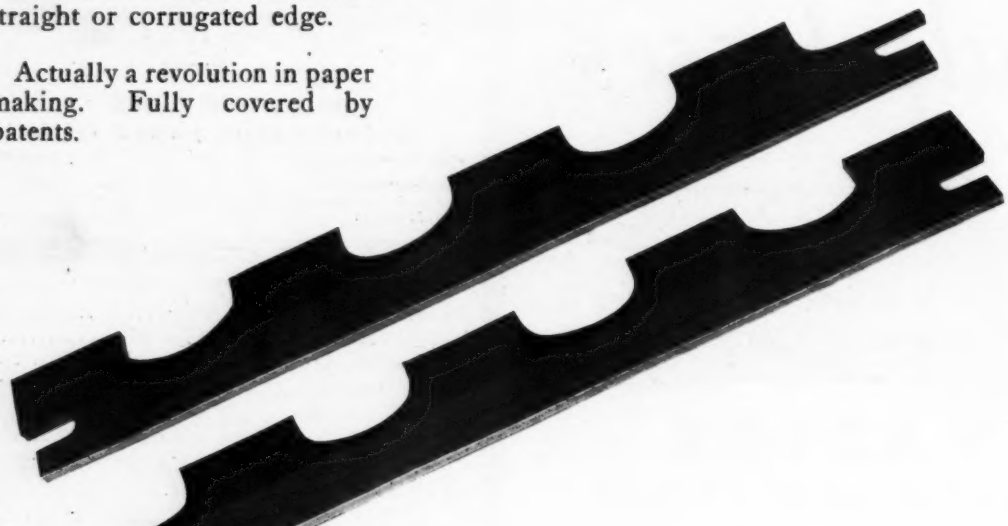

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